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NUCLEAR PROLIFERATION IN SOUTH ASIA: CONTAINING THE THREAT

A STAFF REPORT

TO THE

COMMITTEE ON FOREIGN RELATIONS
UNITED STATES SENATE

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LETTER OF TRANSMITTAL

UNITED STATES SENATE,
COMMITTEE ON FOREIGN RELATIONS,
Washington, DC, August 5, 1988.

Hon. CLAIBORNE PELL,
Chairman, Committee on Foreign Relations,
U.S. Senate, Washington, DC.

DEAR MR. CHAIRMAN: At your direction I traveled to South Asia earlier this year as part of a review of U.S. policy in the region. The attached report addresses the problem of nuclear proliferation in South Asia. A report concerning Afghanistan was released March 17.

Throughout this decade the committee has weighed nuclear nonproliferation goals against other policy objectives in the region. With the prospective Soviet withdrawal from Afghanistan and a new United States administration, the debate on an appropriate nonproliferation policy in South Asia seems likely to be renewed.

This report evaluates the dynamics of the South Asia nuclear programs, the impact on U.S. nonproliferation policies, and regional perspectives on the nuclear weapons issue. In preparing this report, I spoke with senior defense and foreign affairs officials in both India and Pakistan, as well as with political leaders, journalists, academics, and antinuclear activists. During the trip I met with Indian Prime Minister Rajiv Gandhi, Pakistani Minister of State for Foreign Affairs Zain Noorani, and the now reinstated Pakistani Foreign Minister Sahabzada Yaqub Khan.

During the course of the trip, I had the opportunity to raise a number of proposals that might enhance regional nonproliferation efforts. These are discussed at the end of the paper. However, I would call particular attention to a proposal that Pakistan and India each place one additional nuclear facility under nonproliferation safeguards. It is an idea that Pakistan accepted and which, despite an initial lukewarm reaction, I believe India may ultimately consider to be in its interest.

Nuclear proliferation is a global threat as well as a present danger to the almost 1 billion inhabitants of the Indian subcontinent. It is not, however, inevitable and this report emphasizes the factors that work for nuclear restraint. At present these factors are relatively weak; however, an activist U.S. policy can have a role in helping the region contain the nuclear threat.

Sincerely,

PETER W. GALBRAITH.

Executive Summary

OVERVIEW

Since India detonated a nuclear explosive device in 1974, the specter of a nuclear arms race has loomed over the Indian subcontinent. Today, India leads Pakistan in scientific expertise, potential to produce quantities of nuclear weapons, and ability to deliver nuclear weapons. But, both India and Pakistan have sources of the fissile material for nuclear weapons as well as substantial command of the technology for manufacturing weapons.

Significantly, however, neither country has chosen to develop a declared nuclear weapons arsenal. This restraint, which is due both to international pressure and subcontinental strategic considerations, provides some hope that regional arrangements can be constructed to keep South Asia free of nuclear weapons. Interim measures, including an Indo-Pakistani accord not to attack nuclear facilities and the application of nonproliferation safeguards to additional nuclear facilities, may be achievable on a bilateral basis between the two countries. A more permanent South Asia nonproliferation regime would have to involve China and perhaps the superpowers.

THE MILITARY DIMENSION OF NUCLEAR POWER

For both India and Pakistan, the acquisition of nuclear weapons technologies has been a spinoff of their respective civilian nuclear energy programs. For both, military defeat at the hands of a more powerful neighbor provided the principal impetus for exploring the weapons potential of nuclear energy technology.

India's humiliation in the 1962 Sino-Indian border war precipitated a fear of China that dominates Indian strategic thinking to this day. This fear, intensified by China's 1964 nuclear test, has been a principal reason for India's decision to keep the nuclear option open.

Similarly, Pakistan's loss to India in the 1971 war—a loss which resulted in the breakup of Pakistan into two countries—was the major factor in Pakistan's decision to seek a nuclear equalizer to offset India's enormous advantage in population, economic base, and military strength. India's 1974 detonation of a nuclear explosive device served to reinforce Pakistani resolve.

Neither India nor Pakistan participates in the global antiproliferation regime embodied in the 1968 Nuclear Nonproliferation Treaty (NPT). As a result, neither country is bound by the treaty's provisions requiring that all nuclear facilities in a nonnuclear weapons state be under international nonproliferation safeguards. Due to the policies of the suppliers, all foreign-supplied facilities in both countries are under safeguards. However, each country has

unsafeguarded nuclear facilities which provide a source of fissile material for potential use in nuclear weapons.

India's unsafeguarded nuclear program is far larger than Pakistan's. India currently operates two unsafeguarded Indian-designed nuclear powerplants and is scheduled to bring six more into operation over the next decade. In addition, India has two unsafeguarded reprocessing plants that allow it to separate plutonium from spent fuel. India's unsafeguarded nuclear program would allow it to separate enough plutonium to make 12 to 18 small nuclear bombs a year.

Pakistan has just one unsafeguarded nuclear facility that provides a significant source of fissile material. This is an uranium-enrichment plant at Kahuta, a clandestinely-assembled facility using technology and equipment acquired from the West, and in many cases by agents operating in violation of the laws of the country of origin. At current operating levels, Kahuta may allow Pakistan to enrich enough uranium to weapons grade to make one or two nuclear weapons each year.

Both India and Pakistan assert that they do not now possess nuclear weapons. There are some reasons to believe this may be so, but without international inspection these claims cannot be verified.

UNITED STATES POLICY

The United States opposes the spread of nuclear weapons to South Asia and has made nonproliferation a central issue in bilateral relations with India and Pakistan. Since 1974, successive U.S. administrations have pushed for restraint by both countries, utilizing a range of policy tools including diplomatic pressure, the withholding of nuclear cooperation, embargos on the export of nuclear technology, and the leverage of U.S. assistance and arms sales. At Congress' initiative many of these approaches have been incorporated into law. The Nuclear Non-Proliferation Act (NNPA) of 1978 limits the export of nuclear technology to countries that apply full-scope safeguards, that is, accept international safeguards on all their nuclear facilities. The Symington and Glenn amendments link U.S. economic and military assistance to a country's decision either to accept full-scope safeguards or to refrain from certain weapons-related nuclear activities.

U.S. efforts have had some successes. Partially as a response to United States and other international pressure, India announced in the late 1970's that it would not conduct a second nuclear test and that it would not make nuclear weapons. In the 1980's Pakistan responded to pressure from the Reagan administration and the Congress by providing a series of nonproliferation commitments including promises (1) not to test a nuclear explosive device, (2) not to manufacture nuclear weapons, (3) not to enrich uranium to weapons-grade, and (4) not to acquire nuclear technology illegally in the United States. Some of these commitments appear to have been kept; others have not.

Nuclear nonproliferation has often conflicted with other U.S. policy objectives in South Asia. As a result, U.S. policy in the region in the 1970's and 1980's has been characterized alternatively

by strained relations with India and Pakistan over nuclear matters or by a sacrifice of nonproliferation goals to other objectives. Most notably, the Congress and the executive branch have been unwilling in this decade to exert strong pressure on Pakistan to honor its nonproliferation commitments for fear that Pakistan would retaliate by restricting the assistance pipeline to the Afghan Mujahideen.

The Soviet withdrawal from Afghanistan, scheduled to be completed by February 15, 1989 at the latest, could significantly affect U.S. policy toward South Asia. Nonproliferation may again become the top U.S. priority for the region and this could invite new efforts to link U.S. assistance and cooperation with both Pakistan and India to specific nonproliferation criteria.

There is an asymmetry in the United States-Pakistan and United States-India relationships that makes it difficult for the United States to pursue a single regional nonproliferation approach. U.S. bilateral assistance to Pakistan exceeds $600 million annually, a critically important sum for the government. By contrast, the U.S. bilateral assistance to India in fiscal year 1988 is estimated to be $104 million, a relatively small amount for a country of 750 million people. Conditions on bilateral assistance to Pakistan might be effective; conditions on such assistance to India are more likely to be ignored. Further, because it is far behind India, Pakistan's nuclear program is a dynamic one. Its motivating sense of urgency has led to violations of U.S. export control laws and of specific nonproliferation commitments. Meanwhile, having achieved command over nuclear technology, India's program is relatively static.

An additional, and more serious hurdle, for U.S. nonproliferation policy is the differing perspectives of Pakistan and India on regional security. Pakistan sees India as the principal threat and will not be receptive to a nonproliferation agenda that does not treat it equally with India. India, on the other hand, retains the nuclear option as a potential deterrent to China, not Pakistan. Consequently, it is unlikely to relinquish that option entirely except as part of a deal that includes China.

U.S. assistance and cooperation may be an effective lever to promote compliance by Pakistan and India to the specific nonproliferation commitments each has already made. It will be much more difficult to use U.S. assistance as a means to extract new commitments. Beyond insisting on compliance with existing commitments, the United States might productively use its influence to strengthen the opposition to nuclear weapons within South Asia and to promote arrangements among the principal regional actors—India, Pakistan and, on some issues, China—that will, at a minimum, help preserve the nuclear status quo.

CONTAINING THE THREAT

In spite of significant capabilities, neither India nor Pakistan has chosen to proceed with an overt nuclear weapons program. External pressure is one factor working for restraint. More important may be the strategic disadvantages for each country if nuclear weapons spread to South Asia. For India, there is little to fear from a conventionally armed Pakistan; a nuclear-armed Pakistan could

inflict major damage, although it probably cannot produce sufficient weapons in the foreseeable future to destroy India. For Pakistan, a subcontinental arms race is a race it is sure to lose. Pakistan cannot match India's nuclear weapons production capabilities. In a hypothetical South Asia nuclear exchange Pakistan would face annihilation; further, the possession of nuclear weapons could invite a preemptive Indian nuclear attack.

Should either country visibly acquire nuclear weapons, it can be certain that its subcontinental rival will follow. In both India and Pakistan there are politically active figures who recognize the risks inherent in a national decision to go nuclear and who vocally oppose such a step. In Pakistan, several politicians prominent in the democratic opposition have sharply criticized the government for pursuing a pronuclear weapons course. Meanwhile, some of India's leading scientists, authors, journalists, and parliamentarians have banded together in issuing a manifesto calling for a nuclear weapons-free subcontinent. The United States can strengthen voices such as these by emphasizing the risks of nuclear proliferation and by assisting regional efforts to stop the spread of nuclear weapons.

Both Pakistan and India have put forward proposals that address in one way or another the threat of nuclear proliferation in South Asia. Neither side's proposals are likely to be implemented but they do provide a starting point for a dialog. Pakistan has suggested a series of bilateral nonproliferation steps including joint adherence to the NPT or mutual inspection of all South Asian nuclear facilities. While attractive from a U.S. perspective, these proposals are non-starters in New Delhi because they do not take account of India's concerns about China.

India's nonproliferation proposals are contained in its multilateral initiatives for global disarmament. Because of the elusiveness of general disarmament as a goal, India's linkage of nonproliferation to disarmament has been seen as a smokescreen for inaction on the nuclear issue. More recently, however, Indian leaders warmly welcomed superpower progress in negotiating reductions in nuclear weapons, notably the INF Treaty and prospective START Accord, and suggested that this creates an obligation for India to take comparable steps on the proliferation problem.

There is room in the Indo-Pakistani relationship for confidence-building measures that entail something less than a comprehensive subcontinental nonproliferation regime. For example, in 1985 Pakistan and India agreed in principle not to attack each other's nuclear facilities, although a pact embodying this agreement has yet to be finalized.

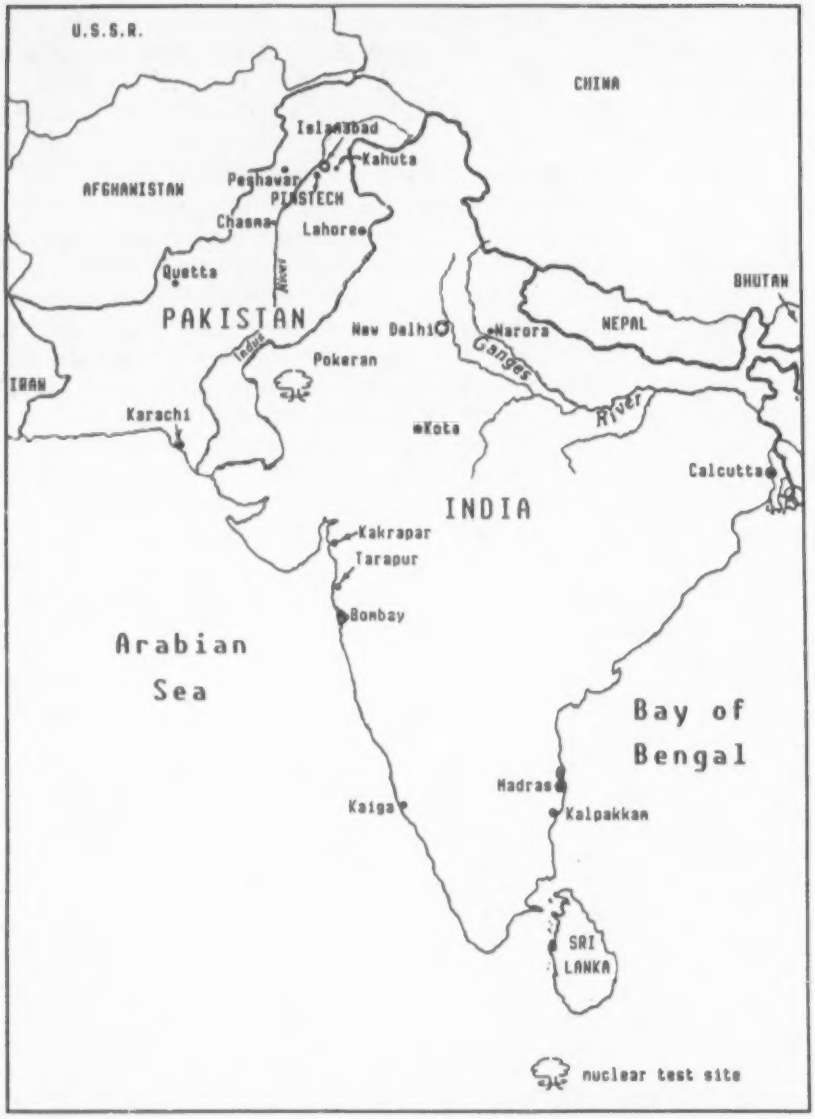
One new proposal discussed during this trip would have India and Pakistan each place one additional nuclear facility of the other's choosing under safeguards. The safeguards could be in the form of IAEA safeguards or bilateral safeguards monitored by inspectors from the other country. While the concept meets a long-standing Pakistani demand to be treated on a par with India on nuclear issues, it would also deprive Pakistan of its only significant source of unsafeguarded fissile material. This is the potential attraction of the plan to India which, because of its several unsafeguarded facilities, would still have limited access to fissile material.

Pakistan's response to the proposal was favorable; India's lukewarm. However, because of the practical advantages to India of a proposal that effectively caps Pakistan's program while preserving India's option, logic suggests India may ultimately find merit in this approach.

Because of its concerns about a nuclear-armed China, India is unwilling to enter into any comprehensive nonproliferation arrangement limited to South Asia. However, India might be tempted by an agreement that banned nuclear weapons not only from the subcontinent but also from Tibet and other parts of China adjacent to India, as well as from parts of the Indian Ocean. This idea for a "Greater South Asia Nuclear Weapons-Free Zone" should be acceptable to Pakistan, which is on record in support of a nuclear weapons-free zone for the subcontinent. Such a plan would have attractions for China and the superpowers, as well as disadvantages.

Nonproliferation has been at the center of U.S. South Asia policy. While the policy has not reversed the trend toward nuclear weapons, neither has it been a failure. As long as the countries of South Asia are short of a declared nuclear weapons arsenal, the United States should use its influence to deter the crossing of final nuclear thresholds and to promote regional efforts to contain the nuclear threat.

Nuclear Facilities in South Asia



Prepared by the Congressional Research Service at the Request of the Senate Committee on Foreign Relations. Derived from Spector, Leonard S. Going Nuclear. Cambridge, Mass.: Ballinger, 1987. p. 94, 120.

I. Background

A. INTRODUCTION

On May 18, 1974, India detonated a nuclear explosive device under the Rajasthan Desert. Although described as a peaceful use of nuclear energy, the Indian test focused world attention on the growing threat of nuclear proliferation.

The Indian blast was significant in a number of ways. It was the first breach of the international nonproliferation regime since the regime had been codified in the 1968 Nuclear Non-Proliferation Treaty (NPT). In making its explosive device, India used technology and material from its civilian nuclear energy program, thus setting an ominous precedent in a world where nuclear powerplants were becoming widely dispersed. Moreover, the test demonstrated that nuclear weapons technology was accessible to a Third World country. It was especially worrisome that this particular Third World country was locked in a bitter dispute with its next door neighbor, Pakistan, and had clashed just 12 years before with another neighbor, China.

The precedents set by the Indian nuclear test have implications for other Third World countries. For example, erstwhile rivals Argentina and Brazil are close to having the technological capability to convert their nuclear power programs to weapons programs and, until the advent of democratic governments in the two countries, seemed to be on a course to do so.

Although the threat of nuclear proliferation is high in several other regions, including the Middle East and South Africa, the United States has tended to focus most of its concern on the South Asian situation. There appear to be several reasons for this.

South Asia is the region where, demonstrably, nuclear weapons technology came to the Third World; the overt acquisition of nuclear weapons in this region could presage the breakdown of global anti-proliferation strictures. Further, unlike the situations in the Middle East or South Africa (but rather like that in Latin America) there are two rivals in South Asia capable of making nuclear weapons. These two countries, Pakistan and India, have fought three wars against each other in just 40 years of independence. In South Asia a heightened risk exists that the acquisition of nuclear weapons will lead to their use.

B. THE ORIGINS OF THE SOUTH ASIAN NUCLEAR PROGRAMS

As a nation with significant scientific and technical capabilities and with aspirations to play a major world role, India was interested in nuclear technology from the outset of the nuclear era. The Indian Atomic Energy Commission was founded in 1955. In 1963 India contracted to buy its first nuclear powerplant, a General Electric reactor built in Tarapur near Bombay.

In the early years, India's nuclear program was intended for research and energy. Events of the 1960's, however, led Indian planners to consider whether a military dimension might also be warranted.

In October 1962 a rather small Chinese force attacked and defeated a much larger Indian Army along India's disputed northeastern border. The attack, and particularly the humiliating nature of the defeat, precipitated a fear of China that dominates Indian strategic thinking to this day. This fear was greatly heightened when China detonated a nuclear bomb in 1964. Undoubtedly, anxiety about Chinese nuclear weapons played a role in India's decision in 1968 not to sign the Nuclear Non-Proliferation Treaty.

While India's development of a nuclear weapons capability was a clear response to China's nuclear arsenal, the timing of the 1974 test was probably dictated more by domestic considerations. In 1974, Prime Minister Indira Gandhi's Congress Party was losing popular support. The nuclear test proved a perfect way to divert attention from domestic economic problems to the acquisition of the ultimate status symbol.

While popular at home, the nuclear test drew condemnation from abroad. In response to such criticism, Mrs. Gandhi asserted repeatedly that the Rajasthan test was a peaceful nuclear explosion, designed to explore the usefulness of nuclear detonations as a development tool. In 1978 the new Indian government of Morarji Desai promised that India would not conduct a second nuclear test and would not make nuclear weapons. India has not conducted a second test and says it has not manufactured nuclear weapons. But without international inspection, this claim cannot be verified. Available evidence suggests that India probably does not possess nuclear weapons at the present time, but does have all the components and could assemble weapons very quickly upon a decision to do so.

Much as India's military nuclear program was a response to military defeat at the hands of China, Pakistan's nuclear program was a response to a military defeat by India. In 1971 India supported and then intervened militarily on behalf of the popular uprising against the Pakistan Army in east Pakistan. By the end of the year, Bangladesh was born and Pakistan had lost territory containing over 50 percent of its pre-1971 population.

As 1972 began, Pakistan faced an Indian rival with a sudden 7-to-1 advantage in population, a growing industrial base, and a triumphant and well-armed military. By contrast, Pakistan's military had been humiliated and over 93,000 soldiers were POW's in Bangladesh. While India had access to top-of-the-line Soviet military equipment, Pakistan had been shut off from U.S. arms sales since the embargo imposed by the Johnson administration during the 1965 Indo-Pakistan War. Chinese weapons, to which the Pakistan military did have access, could not match in quantity or quality those that the Soviet Union made available to India.

Confronting a foe that had just helped shear off its eastern wing and that seemed to exhibit uncertain intentions about the rest of its territory, Pakistan embarked in 1972 on an effort to acquire the great equalizer, a nuclear bomb. When India detonated its own device in 1974, Pakistan's resolve redoubled. In the memorable

words of the late Prime Minister Zulfikar Ali Bhutto, "Pakistan would eat grass" if necessary to acquire its own nuclear deterrent.

Because of its large scientific community and its broad industrial base, India has been able to develop an indigenous nuclear power program. The fissile material for any Indian nuclear weapon would be a byproduct of that power program. The design, construction, and delivery of a nuclear weapon is well within Indian scientific and military capabilities. By contrast, Pakistan does not have the advantage of comparable scientific expertise or of its own developed nuclear industrial base. In order to obtain the components for a nuclear explosive device and to build facilities for the production of fissile material, Pakistan has had to acquire technology and material from abroad.

Since the early 1970's, the United States has led an international effort to block exports of nuclear-related materials to Pakistan. This partially successful effort has driven Pakistan's nuclear technology acquisition program underground, and Pakistani agents have become quite skillful at evading export controls. Occasionally, however, an agent is caught. In the 1970's Dr. A.Q. Khan, considered the father of Pakistan's nuclear program, was convicted in absentia by a Dutch court for stealing the plans to a Dutch centrifuge system used to enrich uranium.[1] In 1984 a Pakistani national, Nazir Vaid, was convicted in Houston for trying to export illegally specialized electronic switches, called krytons, which are usable in the trigger mechanism of a nuclear device. In 1987 Ashad Pervez, another Pakistani agent, was convicted in Philadelphia for trying to export maraging 350 steel (a specialty steel with particular applications for centrifuge technology) to Pakistan for use in the uranium enrichment facility.

The *Vaid* case generated a U.S. legislative response mandating the cutoff of assistance to any country that violates U.S. export laws on nuclear items. In the fall of 1987 the *Pervez* case led to a temporary interruption in the flow of new U.S. assistance and cash sales of military hardware to Pakistan.

In the early 1980's, Pakistan made certain commitments to the United States to restrain its nuclear weapons development program. Nonetheless the well-founded suspicion is that Pakistan has violated some of its specific commitments, including ones not to enrich uranium to weapons grade and not to violate U.S. export laws. According to the preponderance of information available, Pakistan has not actually manufactured a nuclear explosive device, and on December 17, 1987, as a statutory condition for continued U.S. aid, President Reagan certified that Pakistan does not possess a nuclear explosive device.

C. INDIA'S CURRENT CAPABILITIES

India has six nuclear powerplants currently operating and six more under construction. The four older plants—Tarapur I and II and Rajasthan I and II—were supplied from the West and are under international safeguards. These safeguarded facilities must maintain accounts of their nuclear materials and are subject to

[1] The conviction was subsequently overturned on a technicality.

monitoring and periodic inspections by the Vienna-based International Atomic Energy Agency (IAEA). Madras I and II, in operation since 1983 and 1985, are Indian-designed, built, and supplied. They are not under safeguards. Over the next decade six more unsafeguarded Indian-designed power reactors are scheduled to commence operation: Narora I and II, in Uttar Pradesh, east of New Delhi; Kakrapur I and II, on the Arabian Sea north of Bombay; and Kaiga I and II, in northern Karnataka.

India has two reprocessing plants for separating plutonium from the fuel consumed at the nuclear powerplants. The facilities are: (1) the Bhabha Atomic Research Center (BARC) plant at Trombay, with an annual capacity of reprocessing 30 metric tons of spent fuel; and (2) the PREFRE [2] plant at Tarapur, with an annual capacity of reprocessing 100 metric tons of spent fuel. India is developing fast breeder technology intended ultimately to breed U-233 from thorium, which India has in abundant supply. Currently, India operates an experimental fast breeder facility at Kalpakkam. India's reprocessing and fast breeder facilities are indigenously designed and constructed. None is subject to safeguards, although safeguards do attach if and when PREFRE reprocesses fuel from the safeguarded Tarapur [3] and Rajasthan powerplants.

The American-constructed Tarapur plants are fueled with low enriched unranium, supplied by France since 1982.[4] The Canadian-built Rajasthan plants and all the Indian-designed plants use natural uranium mined in India.

India can produce indigenously all the fissile material it needs for its nuclear program. It mines its own uranium, can run that uranium in two unsafeguarded nuclear powerplants (as indicated, there eventually will be eight such facilities), and can separate plutonium from the spent fuel at two unsafeguarded reprocessing plants. India has an annual capacity to produce 180 to 200 kilograms of plutonium, or enough material for 12 to 18 bombs.

D. PAKISTAN'S CURRENT CAPABILITIES

Pakistan has one small nuclear power reactor, the Canadian-supplied natural uranium KANUPP [5] plant near Karachi. The KANUPP plant is under IAEA safeguards, although there were rumors of a breach in safeguards in the early 1980's.

Pakistan has two small-scale reprocessing facilities in Rawalpindi. These are an experimental reprocessing plant located at the Pakistan Institute of Science and Technology (PINSTECH), and the New Labs. The latter may be capable of extracting 10 to 20 kilograms of plutonium a year. The capabilities of the plant at PINSTECH are uncertain but limited. It is unclear whether either facility has been in operation. It is also unclear where and if Pakistan can obtain unsafeguarded spent fuel from which plutonium

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[2] PREFRE is the acronym for Power Reactor Fuel Reprocessing.

[3] The United States asserts that the United States-India agreement on Tarapur requires prior U.S. approval of any reprocessing of spent fuel from Tarapur.

[4] The United States stopped supplying fuel to India when India declined to open all its nuclear facilities to international inspection as required by the Nuclear Non-Proliferation Act of 1978.

[5] KANUPP is the acronym for Karachi Nuclear Power Plant.

can be extracted without making an accounting to the International Atomic Energy Agency.

Pakistan's only significant source of fissile material for nuclear explosive devices is its uranium enrichment facility at Kahuta. The plant uses high-speed gaseous centrifuges—a technology favored in Europe and Japan but abandoned by the United States—to enrich natural uranium to the levels needed for power generation or to make a nuclear explosive device.

Natural uranium contains seven-tenths of 1 percent of the isotope U-235. Low enriched uranium for power generation contains 3 percent of the isotope U-235. Weapons-grade uranium is enriched to 93 percent or better. While Pakistan asserts it has not enriched uranium to weapons grade at Kahuta, there are persistent reports to the contrary.

The Kahuta facility was constructed from plans allegedly stolen from the Netherlands. Critical components have been acquired, often covertly, from Switzerland, Britain, the Netherlands, West Germany, Canada, and the United States. The special maraging steel which Ashad Pervez was caught trying to export illegally from the United States was apparently destined for centrifuge fabrication at the Kahuta plant.[6]

The Kahuta plant is only partially completed. Tightened enforcement of export controls in Europe and the United States has made it increasingly difficult for Pakistan to complete the facility.

At current levels of operation, Kahuta may be able to produce enough weapons-grade uranium for one to three nuclear explosive devices annually. A clandestinely assembled facility, Kahuta is not under IAEA safeguards.

E. DELIVERY SYSTEMS

India and Pakistan each have ample means to deliver nuclear weapons to targets in the other country. India possesses many fighter-bomber aircraft capable of reaching targets any place in Pakistan. These include the British-supplied Jaguar and Canberra fighter-bombers, the French-manufactured Mirage 2000, and several types of Soviet-made Migs.

More recently, the Indians have successfully test-fired a 250-kilometer range surface-to-surface missile called Prithvi. The Prithvi can carry a payload heavy enough to permit its use with a nuclear warhead. India has invested heavily in its space program and could develop in the next decade an intermediate-range missile that would allow it to strike Chinese targets.

Pakistan has fewer delivery systems. However, with some modifications, the U.S.-supplied F-16 fighter-bomber and the French-made Mirage 5PA3 could be used to deliver a nuclear weapon. Since the range of these aircraft is restricted, Pakistan cannot reach targets in the east and south of India. While Pakistan ap-

[6] In PDD88-5, President Reagan found that the maraging steel was intended for Pakistan's nuclear program and thereby placed Pakistan under the purview of the Solarz-Boschwitz amendment prohibiting assistance to countries that violate U.S. export control laws on nuclear technology. In the same document, the President used his authority to waive the application of the Solarz-Boschwitz language to Pakistan.

pears to be interested in missile technology, its capabilities are limited.

Geographic proximity makes it relatively easy for Pakistan and India to deliver nuclear weapons to targets in the other country. Restricting access to missile technology and other nuclear capable delivery systems is desirable but will not significantly diminish the risks associated with the acquisition of nuclear weapons by the two South Asian countries.

II. United States Policy

A. THE NUCLEAR NONPROLIFERATION REGIME

The 1968 Nuclear Non-Proliferation Treaty is the cornerstone of U.S. nonproliferation policy. The treaty itself was a response to the nuclear tests conducted by France and China in the early 1960's. These tests demonstrated that neither technological nor resource constraints were likely to be an effective barrier to the acquisition of nuclear weapons by an increasing number of nations.

The Nuclear Non-Proliferation Treaty imposes obligations on nations with nuclear weapons and on those without. Nonnuclear adherents pledge not to acquire nuclear weapons; as a verification measure, they agree to maintain national accounts of their nuclear materials and to open all their nuclear facilities to inspection and monitoring by the International Atomic Energy Agency. This system of accounting and inspections, called full-scope safeguards, provides some assurance that the nonnuclear signatories are not clandestinely using their nuclear power and research facilities for weapons development.

The nuclear weapons states, defined by the treaty to mean the United States, Soviet Union, United Kingdom, France, and China, pledge not to transfer nuclear weapons to nonnuclear states. They also agree to help the nonnuclear signatories develop peaceful uses of nuclear energy. Finally, the nuclear NPT adherents pledge to negotiate reductions in their nuclear arsenals. Of the NPT-defined nuclear weapons states, only the United States, Soviet Union, and Great Britain have ratified the treaty. France and China refuse to sign, although France has said it will behave as if it had.

While 138 countries are parties to the NPT, several of the significant potential proliferators are not. Among the most important nonadherents are India and Pakistan. India has long objected to "unequal treaties," or at least those unequal treaties which consign India to a position of inferiority. By setting up a two-class system of nuclear-weapons and nonnuclear-weapons states, the NPT is, in the Indian view, unequal and discriminatory.

Further, and more substantively from the Indian point of view, the NPT imposes unequal obligations on the two classes of nations. The nonnuclear states must refrain from developing nuclear weapons and must open all nuclear facilities to inspection; the nuclear-weapons states may continue to develop nuclear weapons and need not agree to any inspection. India's principled objection is accompanied by a practical consideration: as long as China possesses nuclear weapons that threaten India, India is not prepared to give up the nuclear option.

Pakistan does not share India's philosophical approach to the NPT; rather, it refuses to sign as long as India retains its nuclear option. Pakistan has repeatedly asserted its willingness to sign the NPT when India does.

Since 1968, a central goal of U.S. nonproliferation policy in South Asia has been to gain Indian and Pakistani acceptance of the NPT. The policy has been unsuccessful.

B. RESTRICTING ACCESS TO NUCLEAR TECHNOLOGY

Under the NPT bargain, nonnuclear states gain access to peaceful nuclear technology in return for formally renouncing the right to develop nuclear weapons. As a means of strengthening incentives to remain nonnuclear, the United States has embarked on a policy to withhold nuclear cooperation from those states that do not sign the NPT.

Legislatively, this approach is embodied in the Nuclear Non-Proliferation Act (NNPA) of 1978. The NNPA requires a nonnuclear state to accept full-scope safeguards if it wants a nuclear supply relationship with the United States. The act ultimately forced the United States to stop supplying fuel to India's Tarapur reactors. While disputes over fuel supply forced a slowdown in the reactors' operations, a more severe NNPA penalty was avoided when the Reagan administration arranged for France to assume the U.S. contract.

More significant has been the U.S.-led effort to close down all trade in technologies that could enhance a country's ability to manufacture nuclear weapons. In 1977, the Carter administration jawboned France into stopping work on a contract to build Pakistan a large reprocessing plant at Chasma.[7] The Chasma reprocessing plant had no connection in scale to any foreseeable fuel recycling requirements of any conceivable Pakistani nuclear power program. Shut off by France's action from easy access to plutonium and lacking a source of unsafeguarded material to reprocess, Pakistan accelerated its efforts at uranium enrichment. However, operating the Kahuta enrichment facility has proven cumbersome and replete with technical difficulties. One reason for Pakistan's problems has been the embargo, albeit leaky, on nuclear technology.

C. LEVERAGE AND LEGISLATION

Since 1974, the United States has attempted to use the leverage provided by its aid programs, military sales, nuclear cooperation, and political prestige as a means of restraining the acquisition of nuclear weapons in South Asia. Some leverage has been applied by the executive branch; some has been embodied in congressionally initiated legislation linking U.S. assistance and military cooperation to specific nonproliferation objectives.

U.S. leverage has had some impact. For instance, as a measure of its disapproval, the United States responded to India's 1974 nuclear test by scaling back and then eliminating most forms of U.S. assistance in a ban that remained until 1977. That year the Indian electorate voted out Mrs. Gandhi's Congress Party and replaced it with an opposition coalition headed by Morarji Desai. Desai, with political roots deep in the Gandhian traditions of nonviolence, was less favorably disposed toward a nuclear weapons program. While he would not sign the NPT, he did promise President Carter that India would not conduct a second nuclear test and would not build nuclear weapons. Subsequently, the U.S. Congress restored the bilateral aid program.

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[7] Pakistan and France are still wrangling over whether France is obliged to complete the plant.

Because the U.S. assistance program was already small when the cutoff came, it cannot be said that the penalty itself forced a re-evaluation of India's nuclear program. The U.S. aid cutoff was part of a larger adverse diplomatic and political reaction to the Indian test that came as something of a shock to India's leaders. The Desai pledge, which appears to have been kept by his successors, was partially designed to restore India's image.

Pakistan's nuclear program has led to two cutoffs of U.S. assistance, in 1979 and 1987, and to several laws linking U.S. assistance to Pakistani compliance with certain nonproliferation conditions. The impact of the cutoffs and conditions appears mixed, but in spite of predictions in the late 1970's of an imminent Pakistani nuclear test, a decade later Pakistan apparently does not yet have a nuclear bomb. The reasons for this appear to be more political than technical.

In 1976 Congress enacted the Symington amendment to the Foreign Assistance Act. The amendment, as modified by the subsequent 1977 Glenn amendment, prohibits U.S. assistance to any country that delivers or receives nuclear enrichment technology or equipment unless the country places all its nuclear facilities under full-scope safeguards or unless the President certifies that he has received reliable assurances that the country will not acquire nuclear weapons and will not help others to do so.

In April 1979 Pakistan became the first country to run afoul of the new laws; its clandestine efforts to import components for its gaseous centrifuge triggered the Symington amendment's prohibitions with the result that U.S. assistance was banned for 2½ years. While the cutoff probably did little immediately to deter Pakistan's nuclear ambitions, it did signal the seriousness of U.S. resolve on the nuclear issue. Even after U.S. assistance to Pakistan was restored in response to the Soviet invasion of Afghanistan (and after Pakistan made certain new commitments to restrain its nuclear program), Pakistan could not doubt the depth of congressional concern about nuclear proliferation or the likely impact on U.S. assistance were it to build or test a nuclear weapon.

D. RECENT DEVELOPMENTS

The 1979 Soviet invasion of Afghanistan dramatically changed American perspectives on South Asia; it transformed the region from a backwater for U.S. policy to the front line of confrontation with the Soviet Union. This change profoundly affected U.S. nonproliferation policy as well.

As an immediate response to the Soviet invasion, the Carter administration offered Pakistan, notwithstanding the Symington amendment prohibitions, $400 million in U.S. assistance over a 2-year period. With an eye, no doubt, to President Carter's background, General Zia dismissed the offer as "peanuts."

In 1981 the new Reagan administration negotiated a more substantial $3.2 billion 6-year assistance package. To facilitate approval of the package, the administration asked Congress to accept language that would have effectively gutted the Symington amendment.

Congress approved the aid package (after an unexpectedly contentious debate) but balked at repealing the Symington amendment. Instead, it granted Pakistan a 6-year exemption from the Symington amendment and then added a new requirement: No U.S. assistance would be given to any nonnuclear country (as defined by the NPT) that received or detonated a nuclear explosive device.

Recognizing that Pakistan's nuclear program was likely to be a major issue in congressional consideration of United States assistance to Pakistan, the administration sought and obtained a series of commitments from Pakistan. These included: (1) a promise not to test a nuclear explosive device; (2) a commitment not to share nuclear military technology or material with other nations; and (3) a promise not to purchase or otherwise import a nuclear weapon. In December 1982, President Zia expressed those commitments publicly, declaring to the Foreign Policy Association in New York, "Pakistan has neither the means nor indeed any desire to manufacture a nuclear device."

Doubts about Pakistan's willingness to honor its promises led Congress in 1984 and 1985 to consider steps to tighten the nonproliferation conditions on U.S. assistance. In 1984 the Senate Foreign Relations Committee adopted, temporarily, a Cranston-Glenn amendment requiring the President to certify annually, as a condition of United States assistance and arms sales, that Pakistan: (1) does not possess a nuclear explosive device; (2) is not developing a nuclear explosive device; and (3) is not acquiring technology, equipment, or material for the purpose of manufacturing a nuclear explosive device. Although the administration prevailed on the committee to reverse itself (which it did by a one-vote margin), the Congress a year later enacted a milder version of this measure, requiring an annual certification that "Pakistan does not possess a nuclear explosive device, and that the proposed United States assistance program will reduce significantly the risk that Pakistan will possess a nuclear explosive device." [8]

In December 1984, President Zia reportedly provided President Reagan with a further commitment: That Pakistan would not enrich uranium above 5 percent at the Kahuta plant. Pakistani officials deny their country is committed to a specific upper limit on enrichment and instead assert that they have only promised not to enrich uranium to weapons grade.

Pakistan's covert acquisition of nuclear weapons components in the United States—and notably the much publicized conviction of Nazir Vaid in the 1984 kryton case—led to yet another congressional response. In 1985 a Solarz-Boschwitz amendment was enacted prohibiting assistance to any country that acquires nuclear weapons technology in the United States in violation of U.S. law. Pakistan once again promised it would abide by U.S. export control laws. Nevertheless, Pakistani agents continued covert efforts to acquire U.S. nuclear technology, reflecting an apparently cavalier attitude by the Pakistani Government toward U.S. export control laws and its own commitment. In response to the Pervez affair,

[8] Section 620E(e) of the Foreign Assistance Act.

Congress delayed approval of the new Pakistan assistance program, resulting in a 3-month aid suspension.

Whether U.S. assistance provides the United States leverage over Pakistan's nuclear program is a question that has been hotly contested during congressional deliberations on Pakistan aid. The verdict at this stage must be considered inconclusive, if only because the United States has been unwilling to make Pakistani compliance with a range of specific nonproliferation commitments the quid pro quo for assistance. There is, however, reason to believe that the U.S. assistance relationship has been a factor—albeit not the only factor—in deterring Pakistan from taking the final steps of building and testing a nuclear explosive device. Pakistani officials understand that, as a matter of U.S. law and policy, they cannot possess a nuclear explosive device and retain the U.S. assistance and arms sales relationship. For the time being at least, Pakistan seems to have chosen U.S. assistance over nuclear weapons.

III. Policy Considerations

A. CONDITIONS ON AID TO PAKISTAN

While Congress has tightened certain U.S. nonproliferation conditions on aid to Pakistan, it has been unwilling to adopt tough measures that might jeopardize the assistance program. The reason for this can be summed up in one word: Afghanistan. Resistance to the Soviet occupation of Afghanistan and nuclear nonproliferation have been widely seen as competing objectives for U.S. policy in South Asia. Any effort to increase pressure on the nuclear issue runs the risk, in this view, that Pakistan would be less willing to facilitate assistance to the Afghan Mujahideen.

A minority has argued a contrary position, namely that the Afghanistan crisis has increased U.S. leverage over Pakistan's nuclear program. Because the Soviet presence in Afghanistan represents a very serious strategic threat to Pakistan, Pakistan should be willing to pay a price in terms of its nuclear program for vital U.S. assistance. Further, the proponents of conditions on assistance to Pakistan point out that they are asking Pakistan to do no more than to honor its existing commitments on nuclear proliferation. A failure to hold Pakistan to its commitments, it is argued, projects weakness on the part of the United States that could ultimately jeopardize U.S. control over the assistance program for the Afghan resistance.[9]

The prospect of a successful outcome to the Geneva negotiations on Afghanistan helped mute this debate in late 1987. Critics of unconditional assistance to Pakistan recognized that, with the negotiations in a sensitive phase, the timing was wrong to encumber U.S. assistance with conditions that might be seen by the Soviets as weakening Pakistan's negotiating position.

The Afghanistan settlement will likely alter U.S. views on the proliferation issue. Afghanistan was the reason for resumed U.S. assistance to Pakistan and has been the top priority in United States-Pakistan relations. In this regard, it has eclipsed the second priority: restraint on Pakistan's nuclear program. Removal of Afghanistan as a principal issue seems likely to restore nonproliferation to the top priority in United States-Pakistan relations and could invite new efforts to link continued U.S. assistance to Pakistan's willingness to abide by certain nonproliferation criteria.

This prospect has raised considerable anxiety in Pakistan. Next year could produce a reevaluation of nuclear options in Islamabad as well as Washington.

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[9] For example, see "Get Tough on Pakistan," an op-ed article by Senator Claiborne Pell, Washington Post, August 5, 1987. Reprinted in appendix B.

B. A REGIONAL APPROACH

The policy debate in the United States over proliferation in South Asia has focused heavily on Pakistan. Predictably, the Pakistanis resent intensely what they perceive as one-sided United States attention. They argue that India initiated the nuclear race in South Asia with its 1974 test; they point to their several proposals to limit the spread of nuclear weapons in South Asia, and the lack of an Indian response to them; and they complain about the unfairness of seeking to attach conditions to their assistance and not to India's.

These complaints underscore a basic reality: Pakistan's nuclear program is driven by India's nuclear program and it is therefore difficult to address the problem of proliferation in Pakistan without also addressing the Indian program. Some analysts therefore suggest that the United States ought to adopt a policy that treats India in the same way as Pakistan is treated.

Not surprisingly, this balanced regional approach is sharply criticized in New Delhi. Indians object to being treated on a par with Pakistan, pointing to their country's big edge in population, GNP, military strength, technological and scientific capability, and greater success in establishing a stable democratic political system. In the Indian view, their country is one of the giants of Asia and should be treated on a par with the other Asian giant, China.

In spite of extensive discussion of the importance of a regional approach to the threat of nuclear proliferation in South Asia, it has been difficult to construct such an approach. The United States provides very substantial military and economic bilateral assistance to Pakistan; it provides only limited economic assistance to India. The United States theoretically has some leverage with Pakistan but much less with India.

In connection with its consideration of the fiscal year 1988 continuing resolution, the Senate Appropriations Committee attempted to construct a balanced regional approach to the problem. To balance the bilateral U.S. assistance program for Pakistan, the committee proposed that U.S. votes on multilateral bank loans to India (on which India is dependent), and also the sale of U.S. high-technology items, be used as the bargaining chip for Indian adherence to certain nonproliferation conditions. Opponents of this initiative, led by Senators Moynihan and Glenn, argued that the provision was gratuitously aimed at India, since Pakistan—and not India—was violating U.S. law as well as its nonproliferation commitments. Further, the equation of India and Pakistan would be counterproductive, it was argued, in light of India's resentment of being treated on a par with Pakistan, and India's concern about China. Finally, the opponents expressed concern about applying the "balanced regional approach" to other areas such as the Middle East and southern Africa.

The Appropriations Committee language was ultimately deleted from the Senate-passed bill. It did catch the attention of policymakers in New Delhi, who insisted its passage would have adversely affected United States-India relations. New Delhi feels strongly that Washington does not appreciate the intensity of its resentment of being equated with Pakistan on nuclear matters.

C. THE CHINA FACTOR

In terms of its security, India looks beyond the subcontinent. The 1950 Chinese conquest of Tibet eliminated an important buffer state and brought the Chinese to India's border. In 1962 India and China fought a brief border war, which resulted in quick, humiliating defeats for India. A large part of the Sino-Indian border remains in dispute. In the northwest, China occupies a large chunk of territory (the Aksai Chin) that India claims as its own; in the northeast, China claims territory occupied by India. In early 1987 both sides engaged in a major buildup along India's northeast frontier that had many analysts concerned about a new border war.

The Sino-Indian border dispute has broader dimensions. India is the host for the Tibetan government in exile; the Chinese pointedly refuse to recognize India's 1975 annexation of the Kingdom of Sikkim. China also plays a role in the politics of the subcontinent; it has been Pakistan's closest ally for many years and, in the Pakistani view, its only truly reliable friend.

China has, of course, possessed nuclear weapons since 1964. India has retained its nuclear option as a potential counter to the Chinese weapon, not as a deterrent to Pakistan. (Given India's conventional advantage, it would be unnecessary to develop nuclear weapons to confront a nonnuclear Pakistan.) A regional approach to nuclear proliferation in South Asia may be the most constructive way to deal with the threat. But the question is: What defines the region? Any regional approach that does not take account of China's nuclear arsenal is certain to fail with New Delhi.

D. RESTRAINTS ON A SOUTH ASIA NUCLEAR ARMS RACE

There are some reasons to hope that the nuclear arms race will not spread to South Asia. The principal reason for optimism is simply that the nuclearization of the region has not yet occurred. In the 14 years since India detonated its device, neither India nor Pakistan is known to have manufactured nuclear weapons. In spite of various predictions of imminent tests, neither country has undertaken the testing program critical to the development of a reliable nuclear arsenal.[10]

At this stage the restraints on India and Pakistan are no longer technical, but strategic and political. Good arguments can be advanced that nuclear weapons serve the interest of neither country.

As to India, it retains the nuclear option as potential deterrence against China; but an option by itself has little deterrent effect. Meanwhile, India's retention of the option has encouraged Pakistan to continue its nuclear weapons program. A nuclear-armed Pakistan could do real damage to India, even if India has its own nuclear weapons. On the other hand, a conventionally armed Pakistan cannot challenge India's regional preeminence and cannot se-

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[10] Experts in nuclear matters maintain that, with the current state of knowledge about nuclear weapons design, a country no longer needs to test a device to have confidence that its weapon will explode. For India, the problem is not whether the design works, but the quality and consistency of the process used to manufacture weapons. To have confidence in the production process, a testing program would seem essential. Pakistan, which has never tested a device and which lacks India's scientific and engineering expertise, probably needs to test to have confidence in the design of any homemade weapon. In addition, Pakistan faces the same quality control problems as India.

riously harm Indian territory. Thus, India has incentives to keep Pakistan from developing nuclear weapons if it can. If it is necessary for India to limit its own nuclear option with regard to China as the price of keeping Pakistan nonnuclear, the price may be worth paying.

Pakistan, too, has reasons to avoid the nuclearization of South Asia. In the early 1970's Pakistan saw nuclear weapons as a way to offset India's conventional superiority. The bomb was the great equalizer. Some Pakistanis have come to realize, however, that the nuclearization of South Asia could perpetuate Pakistan's military inferiority while increasing the prospect of its total obliteration. India's nuclear resources are far greater than Pakistan's; and because of its extensive unsafeguarded nuclear energy program, India has access to ample supplies of fissile material. By some estimates, it could soon produce 18 or more bombs a year, whereas Pakistan could probably make fissile material for no more than 1 or 2 bombs a year from its current unsafeguarded nuclear facilities.

Because of its limited ability to produce nuclear weapons, Pakistan would be at a decided disadvantage in a hypothetical South Asia nuclear exchange. Although it could inflict major damage on India—several of India's most important cities such as Bombay and New Delhi are within the range of Pakistani aircraft—it would have the resources to strike only a small number of targets. Much of India is, moreover, out of range. Meanwhile, India would have the weapons and the delivery systems to destroy targets throughout Pakistan. In sum, India could survive an all-out nuclear exchange between the two countries; Pakistan would not.

Given this imbalance, some believe it is not in Pakistan's interest to develop nuclear weapons even if India has them. Because of its conventional superiority, a nuclear-armed India would be most unlikely to use nuclear weapons against a nonnuclear Pakistan. Not only would world condemnation ensue, but nuclear fallout from an attack on Pakistan could come across the border into India. On the other hand, if Pakistan acquired nuclear weapons, India might be tempted in a future conflict to take advantage of its nuclear superiority to launch a preemptive first strike.

Politicians in India and Pakistan frequently assert that they can do nothing about the nuclear issue because of the popularity of nuclear weapons with their respective publics. No doubt, nuclear weapons have great prestige value and a test can boost the sagging stock of a political leader, as Mrs. Gandhi showed in 1974.

There are, however, voices in both Pakistan and India that oppose their country's acquisition of nuclear weapons. Two prominent Pakistani politicians have called on Pakistan to sign the NPT even if India does not: Ghulam Mustafa Jatoi, the former Governor of Sind and a man considered by General Zia for Prime Minister on several occasions, and Air Marshal Asghar Khan. The air marshal is head of the Tehrik-i-Istiqlal Party and spearheaded the opposition alliance which helped bring down Prime Minister Bhutto's government in 1977.

Benazir Bhutto, daughter of the late Prime Minister and leader of Pakistan People's Party, has criticized the Zia government for pursuing a covert nuclear program that has jeopardized relations with the United States. As she told the Indian Express: "We only

want nuclear energy for peaceful purposes and we are prepared to set all doubts at rest on this score because it has undermined our relations with other countries and it has complicated matters for Pakistan." During a recent visit to the United States she emphasized her opposition to a Pakistani nuclear bomb. While not willing to sign the NPT, she did open the door to verification. As she pointed out to her American interlocutors, if U.S. intelligence has been able to detect Pakistan's efforts to enrich uranium and acquire bomb components, it presumably would be able to verify a Pakistani pledge not to engage in such activity. If not, however, she indicated her readiness to have Pakistan take other steps to provide assurance of its nonnuclear status.

In India, Rajiv Gandhi is said to be the principal opponent within his government to a nuclear weapons program and has devoted considerable time and energy to his country's disarmament proposals. Further, while there is a vocal pronuclear lobby in India, there is also an incipient antinuclear movement. For example, a group of distinguished Indian scientists, parliamentarians, authors, academics, journalists, and elder statesmen recently formed The Committee for A Sane Nuclear Policy (COSNUP). The manifesto of COSNUP reads in part:

> It is presumptuous to claim that India, the preeminent state in the subcontinent, is being forced to go nuclear by Pakistan. Where does our responsibility lie in directing the course of history of our unfortunate region? * * * [W]e believe that the onus rests with us for the decision whether this region should go nuclear or not. * * * Along with Pakistan we should seek ways of ensuring that India, Pakistan, and the whole South Asia and the Indian Ocean remain a nuclear free zone.

A new generation and a new way of thinking about nuclear issues provides some reason to hope the South Asian countries will be able to make their own arrangements to keep the region free of nuclear weapons. An international environment in which the superpowers are seen as making progress toward reduction of their nuclear arsenals certainly contributes to this effort. Should either India or Pakistan opt for an overt nuclear weapons program, the prospects for an agreement for a nuclear weapons-free South Asia will sharply diminish if not disappear. But as long as this Rubicon is not crossed, time will work in favor of nuclear restraint.

IV. A Strategy for South Asia Nonproliferation

A. GENERAL APPROACH

The next administration and Congress will almost certainly revisit the issue of nuclear proliferation in South Asia. A comprehensive approach undertaken as a priority matter is essential if any progress is to be made. In devising a South Asia nonproliferation strategy, the following points should be considered:

(1) A long-term solution to the nuclear dilemma cannot be imposed from outside; it must be one negotiated among the countries of the region.

(2) Delay of the overt acquisition of nuclear weapons by the South Asian countries is an essential condition for a long-term solution. Delay allows for the possibility that the antinuclear forces in both India and Pakistan will gain ascendancy in the policy debate. Once the South Asian countries openly possess nuclear weapons, it will be extremely difficult to move back to a nonnuclear arrangement.

(3) The United States has considerable political and economic influence in South Asia and can use it to encourage delay. In addition, U.S. bilateral economic and military assistance provides substantial leverage in the region, particularly with regard to Pakistan, which is militarily and economically dependent on the United States.

(4) An essential element of a delay strategy is ensuring compliance by regional states to the commitments they have already made. In the case of China, this is a commitment, coincident with the United States-China Nuclear Cooperation Agreement, not to transfer nuclear weapons technology or to assist other countries in developing nuclear weapons. In the case of India, the promise is not to develop nuclear weapons. In the case of Pakistan, the main commitments are not to develop a nuclear weapon, not to enrich uranium to weapons grade, and not to acquire nuclear weapons-related technology in violation of U.S. export laws.

(5) It is harder to use U.S. assistance as a lever to extract new nonproliferation commitments than to link assistance and other benefits to a country's willingness to honor fully its current agreements.

(6) The nuclear issue occurs within the context of other South Asia security issues. Efforts to improve Sino-Indian relations and Indo-Pakistani relations should make it easier to resolve the nuclear issue.

The starting point for any new nonproliferation effort in South Asia should be the proposals put forward by the countries of the region themselves. Both Pakistan and India have a number of nonproliferation proposals on the table. Pakistan's proposals frame the

issue in the subcontinental context; India's have a global context consistent with its objection to regional solutions that might put India in an inferior relationship to the five NPT nuclear weapons states. Beyond encouraging a dialog on the proposals of the regional states, the United States has a potential role in promoting new thinking and new initiatives. Two examples of potential initiatives are discussed at the end of this chapter.

As an extraregional power with comparatively good relations with both India and Pakistan, the United States has a special access and standing. Potentially, the Soviet Union could also play a role in promoting a South Asia nuclear dialog. On this issue, Soviet and American interests are congruent and South Asia provides an opportunity to test stated Soviet desires to play a more constructive world role.

The recent Soviet decision to lease to India a nuclear-powered submarine has not been helpful in that it is contrary to the proposition, embodied in U.S. policy and law, that nuclear technology should be shared only with nonnuclear countries that accept full-scope safeguards. On the other hand, General Secretary Gorbachev is said to have a strong personal interest in superpower cooperation to contain the spread of nuclear weapons. According to a retired senior Indian diplomat, Gorbachev discussed the possibilities of such cooperation in South Asia at length with Prime Minister Thatcher during his 1985 visit to Britain.

It should be emphasized, however, that neither the United States nor the Soviet Union is likely to be able to impose a nonnuclear solution on South Asia. China is part of the South Asian nuclear problem and therefore must be part of the solution.

B. PAKISTANI PROPOSALS

Pakistan has presented to India a series of proposals designed to limit or prevent the spread of nuclear weapons to South Asia. These proposals include offers to: (1) sign the Nuclear Non-Proliferation Treaty if India does; (2) place its nuclear facilities under full-scope safeguards if India also does so; (3) establish a regime of mutual inspection of each other's nuclear facilities; and (4) set up a South Asia nuclear weapons-free zone. Each of these proposals would effectively keep nuclear weapons out of South Asia. Unfortunately, none is acceptable to India.

As discussed above, India has a principled objection to the NPT and to the IAEA regime of full-scope safeguards. Sensitive to this concern, Pakistan also offered the option for bilateral inspection, arguing—with some merit—that Pakistani inspectors in India would be more thorough than the international inspectors and vice versa. More fundamentally, however, the Pakistani proposals do not take account of India's concern about China's nuclear program. Under present circumstances any purely bilateral arrangement between India and Pakistan, or any regional arrangement confined to the subcontinent, that required India to give up its nuclear option entirely is bound to fail.

Bilateral Indo-Pakistani arrangements that involve something less than imposing full-scope safeguards on India and Pakistan are achievable. In 1985 Prime Minister Gandhi agreed in principle to a

Pakistani proposal that each side refrain from attacking the other's nuclear facilities. While not directly addressing the potential acquisition of nuclear weapons, the no-attack agreement—if implemented and honored—could save hundreds of thousands of civilian lives in densely populated South Asia should there be a renewal of Indo-Pakistani hostilities. It also represents a useful confidence-building measure.

Unfortunately, India has procrastinated in reaching a formal agreement on the no-attack accord. Pakistanis see the delay as symptomatic of a more general Indian attitude toward their nonnuclear initiatives, believing their proposals are simply not taken seriously in New Delhi. In many cases they are right. Indians question Pakistani sincerity, arguing that Pakistan has put forward proposals that it knows India will reject and, in any event, Pakistan could not be trusted actually to implement any agreement reached.

Until recently, India has failed to counter Pakistani proposals with proposals of its own, thus conveying to some an impression that Pakistan is more interested in a nuclear dialog than India. India's lack of response, of course, does nothing to deter Pakistan from the pursuit of its own nuclear ambitions.

C. RAJIV GANDHI'S THREE-TIER APPROACH

While India has not addressed nuclear issues on the bilateral level with Pakistan, it has been a leading advocate for total nuclear disarmament on the multilateral level. In recent years, India has worked to focus global attention on nuclear issues through the so-called Five Continent Peace Initiative. Comprising the leaders of six nations—India, Argentina, Mexico, Tanzania, Sweden, and Greece—the initiative has entailed periodic heads-of-government summits, experts' meetings, and publicity efforts. While not considered as particularly significant by the Western arms control community, the initative is viewed as important by many Third World countries. The Soviet Union, playing to a Third World constituency, purports to take the initative seriously.

The Five Continent Initiative has been criticized for talking about disarmament but failing to come up with workable proposals. Even those sympathetic to the initiative note that it can hardly be taken seriously as long as two members—India and Argentina—steadfastly refuse to address their own nuclear programs. In part as a response to these criticisms, Prime Minister Rajiv Gandhi has come forward in recent months with a three-tier approach to disarmament. First raised during his 1987 visit to Washington, the Prime Minister provided more detail during our meeting.

The three-tier approach divides the nuclear world into three categories of nations: (1) the superpowers (U.S. and U.S.S.R.); (2) the second-rank nuclear nations (China, France, U.K.); and (3) the "near nuclear" nations (India, Pakistan, Argentina, Brazil, Israel, South Africa). Under the Gandhi proposal, each tier would have different obligations.

First, the superpowers would be obliged to reduce their nuclear arsenals. In this connection the INF Treaty and any prospective START agreement are viewed by India as a boost to nonprolifera-

tion efforts. The second-rank nuclear powers would be obliged, under the Gandhi proposal, to freeze their arsenals at current levels. The Prime Minister recognized that, for Britain and France, such a freeze would have to be accompanied by an agreement to redress the East-West imbalance of conventional forces in the European theater. Finally, under the proposal, the near-nuclear states would agree to remain nonnuclear.

The details of the three-tier approach, including verification arrangements as well as issues of universality, have yet to be worked out, and are of course essential. Clearly, any arrangement following from the three-tier approach would require the assent of all five official nuclear states: Would it also require the assent of all the near-nuclear states? And how would these states be defined? The three-tier approach would preclude the development of new technologies, such as SDI, and therefore would pose a real problem for the current U.S. administration.

In spite of obvious problems, the Gandhi proposal seems to merit further exploration. Among other things, it is significant that India is now willing to approach the problem of nuclear proliferation simultaneously with superpower arms reductions, rather than subsequent to such agreements. Further, by proposing a global nuclear weapons freeze for all but the superpowers, India is endorsing a prospective global nuclear agreement that is unequal in that it allows some states to retain nuclear weapons while others are barred from having them.

D. SAFEGUARDS ON ADDITIONAL NUCLEAR FACILITIES

One new proposal raised in the course of the trip was for India and Pakistan each to place one additional nuclear facility under safeguards. This proposal, if implemented, would be a significant confidence-building measure as well as a limit on the nuclear capabilities of both countries. The idea was discussed in some detail with Pakistani Minister of State for Foreign Affairs Zain Noorani and with Indian Prime Minister Rajiv Gandhi, as well as other senior Indian national security officials. The Pakistani reaction was favorable; the Indians expressed interest but made no commitments.

The proposal is as follows: Pakistan and India would each apply nonproliferation safeguards to one of its nuclear facilities not currently under international safeguards. Such safeguards could be in the form of IAEA safeguards or could be safeguards monitored by inspection teams from the other country. India would choose the facility in Pakistan to be safeguarded; Pakistan would choose the Indian facility.

The new safeguards proposal has advantages for both countries. For Pakistan, it satisfies a longstanding demand that on nuclear matters it be treated equally with India. Further, although India has (or soon will have) five unsafeguarded nuclear facilities, only two have major significance for nuclear weapons production. These two facilities are India's reprocessing plants, BARC and PREFRE. PREFRE can reprocess 100 tons of spent fuel a year; BARC, 30 tons. By putting safeguards on PREFRE, Pakistan would bring 70 percent of India's principal source of plutonium under safeguards;

by choosing BARC, Pakistan could gain access to the "brains" of the Indian nuclear program.

For India there are also major advantages to this proposal. Pakistan has only one unsafeguarded nuclear facility of significance—the uranium enrichment facility at Kahuta. By bringing Kahuta under safeguards, India would effectively deny Pakistan access to its source of unsafeguarded weapons-grade fissile material needed to produce nuclear weapons. On the other hand, India would not have to give up wholly its access to unsafeguarded fissile material. Regardless of which Indian reprocessing facility Pakistan chose for new safeguards, India would still have a reprocessing facility that could produce unsafeguarded plutonium, albeit in more limited quantities. Thus, under this proposal, India would not have to sacrifice the nuclear weapons option which it feels it must maintain as a possible counter to China's nuclear arsenal.

The proposal is neither a panacea nor a complete solution to South Asia's nuclear dilemma. First, the proposal does not address the stockpiles of unsafeguarded fissile material currently in Pakistani and Indian inventories. Pakistan is thought to have enough weapons-grade uranium for several devices; India is said to have enough plutonium for 10 to 20 bombs. Thus, even if India and Pakistan were to accept this proposal, each would retain an option to make some nuclear weapons. Again, India would still be able to produce additional fissile material in limited quantities.

Moreover, in the longer term, both India and Pakistan could build additional nuclear facilities, thus making the limitations of this proposal a nullity. Indeed, Pakistan is rumored to have a new uranium enrichment facility under construction. But adoption of the proposal would postpone the time at which both countries could acquire significant nuclear arsenals. Even more important, it would represent a major confidence-building measure upon which future actions could be based.

Pakistan was far more supportive of the proposal than India. Minister Noorani said he believed his government would accept the proposal if India would. He noted Pakistan's oft-stated position that it will accept any nonproliferation proposal that India also accepts. Because the proposal would bring Pakistan's only significant source of unsafeguarded fissile material (Kahuta) under safeguards, Minister Noorani emphasized that Pakistan would have to be allowed to choose the Indian facility.

Prime Minister Rajiv Gandhi found the proposal to be "an idea worthy of further exploration", but he and other Indian officials were noncommittal. Indian officials did not repeat their country's traditional bugaboo about being treated on a par with Pakistan since, unlike earlier proposals, this proposal does not require that full-scope safeguards be applied to all Indian nuclear facilities.

Because India's nuclear program contemplates an integrated fuel cycle, some Indian officials were concerned at how placing one facility under safeguards might affect the integrity of the cycle. Placing a sensitive nuclear facility under safeguards requires full monitoring of the facility and of the nuclear material processed through the facility. Under this proposal, plutonium recovered by a safeguarded reprocessing plant would itself become subject to permanent safeguards. As with all NPT-type IAEA safeguards, the in-

spection and verification of nuclear materials would be supplemented by the installation of remote monitoring devices and the installation of physical barriers to restrict access to the safeguarded material. Were the safeguarded material to be transferred to another facility, the safeguards would follow and apply to the material while it was in the new facility. However, once the safeguarded material left, the safeguards would leave with it. For example, when PREFRE reprocesses spent fuel from the safeguarded Rajasthan nuclear powerplant, safeguards apply to this material when in PREFRE, but do not apply to PREFRE otherwise. Thus, placing one additional nuclear facility under safeguards should not affect the integrity of India's nuclear fuel cycle.

E. THE GREATER SOUTH ASIA NUCLEAR WEAPONS-FREE ZONE

India is unwilling to accept any comprehensive nuclear nonproliferation arrangements limited to the Indian subcontinent. A restricted regional arrangement does not address Indian concerns about China or about superpower nuclear weapons in the Indian Ocean. For this reason, India has rejected Pakistan's proposal for a South Asia nuclear weapons-free zone comprising just the subcontinent.

It is possible, however, to envision a nuclear nonproliferation arrangement that would address many of India's strategic and political concerns. Such an arrangement might entail a "Greater South Asia Nuclear Weapons-Free Zone," an agreement prohibiting the deployment of nuclear weapons in India, Pakistan, Tibet and adjacent areas of China, and in parts of the Indian Ocean. Since Pakistan has already endorsed a nuclear weapons-free zone comprising the Indian subcontinent, it would presumably support an expanded nuclear weapons-free zone. Such an arrangement would, however, pose difficulties for China and the United States, but these could be offset by the nonproliferation gains.

For India, the greater South Asia nuclear weapons-free zone could be attractive if (1) it reduced the risk of Chinese nuclear attack on India, and (2) it reduced the likelihood that South Asia would be a battlefield in a U.S.-U.S.S.R. nuclear clash. China's nuclear arsenal consists of a limited number of ICBM's, a larger force of intermediate-range missiles, and several squadrons of limited-range fighter-bomber aircraft. China's nuclear force is intended primarily as a deterrent to the Soviet Union. In theory, the Chinese intermediate-range forces, and in particular the aircraft, could be redeployed so as to minimize the threat to India but so that China could still strike Soviet targets.

India's security would be enhanced if the deployment of nuclear weapons were prohibited in Tibet and other areas adjacent to India, and it might find a treaty that accomplished this an attractive proposition. Such an arrangement could be modeled on earlier proposals for the INF Treaty, which envisioned limiting or prohibiting the deployment of INF missiles in certain areas, but which did not require the destruction of these missiles.

For China, participation in a nuclear weapons-free South Asia arrangement would have the advantage of eliminating a potential nuclear threat from India. Further, the removal of nuclear weap-

ons from Tibet is a major goal of the Dalai Lama, who continues to command the affection and allegiance of the Tibetan people. By making Tibet a nuclear weapons-free zone, the Chinese could take a significant step forward in their effort to effect a reconciliation with the Tibetan people.

There would be significant difficulties in negotiating Chinese participation in a South Asia nuclear weapons-free regime. Because China is a nuclear-weapons state, there would have to be extensive verification procedures, including inspections, to insure that it did not introduce nuclear weapons into the proscribed areas. Beyond the practical difficulties, there is also a political-strategic problem: China looms large in Indian strategic calculations; India, on the other hand, is essentially a peripheral power in Chinese eyes. Chinese strategic planners are much more concerned about the threat from the Soviet Union and with developments in the Pacific Rim and in Southeast Asia. While there are advantages for the Chinese of an arrangement that keeps India nonnuclear, it still may be difficult to persuade China to place major restraints on the deployment of its nuclear forces as part of a nonproliferation regime in far-away South Asia.

An arrangement that kept nuclear weapons out of the parts of China closest to India would not eliminate the Chinese nuclear threat to India. China's small ICBM force could still target India and most plausible basing modes for Chinese intermediate-range missiles would leave parts of India in range. Indian planners would also have to worry that nuclear weapons might be moved into a proscribed region, notwithstanding the text of a treaty. Nevertheless, an agreement prohibiting the deployment of nuclear weapons in Tibet would enhance India's security to some degree, as well as constitute an important confidence-building measure between the two Asian giants.

In addition, India would almost certainly want some limitations on the presence of superpower nuclear weapons in the Indian Ocean as part of any deal under which India agreed to give up its own nuclear option. At a minimum, India would likely want to be sure that strategic weapons (i.e., nuclear missile submarines and nuclear-armed strategic bombers) were not deployed in the Indian Ocean.

With the deployment of the Trident II missile, the United States has no need to station submarines in the Indian Ocean to reach Soviet targets. Deployment of nuclear weapons at Diego Garcia is also not essential. On the other hand, a strict nonnuclear regime for the Indian Ocean, that is, one that precluded transit of nuclear weapons or the stationing of ships armed with tactical nuclear weapons, would pose a serious problem for the United States. Any sacrifice of U.S. strategic and tactical interests entailed in a greater South Asia nuclear weapons-free zone would have to be weighed against the very substantial benefit of preventing the spread of nuclear weapons to the South Asian nations.

For India, a greater South Asia nuclear weapons-free zone involves trading an unexercised nuclear option for an arrangement that: (1) keeps Pakistan from acquiring nuclear weapons; (2) reduces the nuclear threat from China; and (3) limits superpower nuclear presence in the immediate vicinity of the subcontinent. It is

unclear whether Indian strategic planners would see this as a sufficiently attractive deal to pursue even though, as discussed above, the nuclear option per se has little deterrent effect. It is, of course, also unclear if the arrangements described above could be made acceptable to the United States and China.

It is clear, however, that progress on superpower arms control does affect Indian perceptions of nuclear matters. With the INF Treaty eliminating an entire class of nuclear missiles and a prospective START agreement reducing strategic weapons by up to 50 percent, Indians believe there is an opportunity for progress on other nuclear issues. Prime Minister Gandhi's three-tier approach is one such effort. Indians also feel an obligation, in the context of superpower negotiations, to make progress on nuclear issues in their own region, as properly defined. The premises underlying the greater South Asia nuclear weapons-free zone are widely shared by Indians and this approach does have its advocates. The idea merits further exploration.

F. CONCLUSION

Since the 1974 Indian test of a nuclear explosive device, the specter of a nuclear arms race has loomed over South Asia and has been a matter of particular concern to the world community. This prospective nuclear arms race represents the most immediate threat to the global nonproliferation regime established by the 1968 Nuclear Non-Proliferation Treaty. Were the NPT to be ineffective in South Asia, the barriers to the spread of nuclear weapons in other regions, including South America, Southern Africa, and the Middle East, might also break down.

Also, the acquisition of nuclear weapons by India and Pakistan poses a real risk that nuclear weapons will actually be used in conflict for the first time since World War II. In their 40 years of independence, India and Pakistan have fought three full-scale wars. Tensions between the two countries have been high in the recent past. If nuclear weapons come to South Asia, a future conflict might well be a nuclear conflict.

The United States therefore has been right to focus on nuclear proliferation as a primary issue in its relations with India and Pakistan and to make South Asia the centerpiece and test case for U.S. nonproliferation policy. While U.S. policy has not reversed the trend toward nuclear weapons in South Asia, neither has the policy been a total failure. The U.S.-orchestrated embargo on the export of nuclear technology has clearly slowed down Pakistan's progress toward developing a bomb and has worked to limit the size of any arsenal it might produce. The United States is considered an important actor by the regional countries (perhaps perceived as more influential than in reality it is) and its steadfast opposition to the acquisition of nuclear weapons carries weight in South Asia. This is obviously true for Pakistan, where the United States is a major provider of military and economic assistance; it is also true for India, which needs U.S. cooperation for its ambitions for a global diplomatic role and where there are growing economic, scientific and people-to-people links with the United States.

Further, the interplay between Congress and the executive branch has been a constructive force in promoting the U.S. nonproliferation message. By placing certain nonproliferation requirements in law—such as the requirement that Pakistan not possess a nuclear explosive device as a condition of U.S. assistance—Congress has underscored the U.S. intention to enforce the particular requirement. Through policy debates about tougher nonproliferation criteria, Congress gives the administration a tool to pursue additional nonproliferation commitments.

The United States can slow the trend to nuclear weapons in South Asia. Reversing the trend, however, will require a concerted effort by the countries of the region, which in turn will require a change in public attitudes toward nuclear weapons. In both India and Pakistan some are calling for nuclear restraint. These voices should be encouraged.

As an interim step, Indo-Pakistani agreements on certain nuclear issues may be achievable. Because of the Indian attitude, any such agreement will likely be limited in scope; nevertheless, even limited measures will restrain the pressures in each country to go nuclear as well as help build confidence between the two. The prospective no-attack accord on nuclear energy facilities is one such confidence-building measure; the proposal outlined here for India and Pakistan each to apply safeguards to one additional nuclear facility is another. Efforts relating to nuclear weapons have their best prospect for success if they occur in a context of improved Indo-Pakistani relations. The United States can help promote both a broader dialog as well as specific nuclear-related confidence-building measures.

Finally, there is a need to look to more permanent solutions to the nuclear proliferation threat in South Asia. Unless China is part of that process, no comprehensive approach seems likely to work with India. As implied in Prime Minister Gandhi's three-tier approach, India now seems willing to live with arrangements that do not provide for parity with the Chinese. This may make it possible to find global or regional arrangements that would effectively prevent the spread of nuclear weapons to South Asia. A greater South Asia nuclear weapons-free zone represents one possible approach.

APPENDIX

Appendix A. Selected Legislation Relating to Nuclear Issues

1. PRESIDENTIAL CERTIFICATION REQUIREMENT FOR ASSISTANCE TO PAKISTAN

Sec. 620E. Assistance to Pakistan.—(a) The Congress recognizes that Soviet Forces occupying Afghanistan pose a security threat to Pakistan. The Congress also recognizes that an independent and democratic Pakistan with continued friendly ties with the United States is in the interest of both nations. The Congress finds that United States assistance will help Pakistan maintain its independence. Assistance to Pakistan is intended to benefit the people of Pakistan by helping them meet the burdens imposed by the presence of Soviet forces in Afghanistan and by promoting economic development. In authorizing assistance to Pakistan, it is the intent of Congress to promote the expeditious restoration of full civil liberties and representative government in Pakistan. The Congress further recognizes that it is in the mutual interest of Pakistan and the United States to avoid the profoundly destabilizing effects of the proliferation of nuclear explosive devices or the capacity to manufacture or otherwise acquire nuclear devices.

(b) The United States reaffirms the commitment made in its 1959 bilateral agreement with Pakistan relating to aggression from a Communist or Communist-dominated state.

(c) Security assistance for Pakistan shall be made available in order to assist Pakistan in dealing with the threat to its security posed by the Soviet presence in Afghanistan. The United States will take appropriate steps to ensure that defense articles provided by the United States to Pakistan are used for defensive purposes.

(d) The President may waive the prohibitions of section 669 of this Act at any time during the period beginning on the date of enactment of this section and ending on April 1, 1990, to provide assistance to Pakistan during that period if he determines that to do so is in the national interest of the United States.

(e) No assistance shall be furnished to Pakistan and no military equipment or technology shall be sold or transferred to Pakistan, pursuant to the authorities contained in this Act or any other Act, unless the President shall have certified in writing to the Speaker of the House of Representatives and the chairman of the Committee on Foreign Relations of the Senate, during the fiscal year in which assistance is to be furnished or military equipment or technology is to be sold or transferred, that Pakistan does not possess a nuclear explosive device and that the proposed United States as-

sistance program will reduce significantly the risk that Pakistan will possess a nuclear explosive device.

2. THE SYMINGTON AMENDMENT

Sec. 669. Nuclear Enrichment Transfers.—(a) Except as provided in subsection (b), no funds authorized to be appropriated by this Act or the Arms Export Control Act may be used for the purpose of providing economic assistance (including assistance under chapter 4 or part II), providing military assistance or grant military education and training, providing assistance under chapter 6 of part II, or extending military credits or making guarantees, to any country which, on or after the date of enactment of the International Security Assistance Act of 1977, delivers nuclear enrichment equipment, materials, or technology to any other country, or receives such equipment, materials, or technology from any other country, unless before such delivery—

(1) the suppling country and receiving country have reached agreement to place all such equipment, materials, or technology, upon delivery, under multilateral auspices and management when available; and

(2) the recipient country has entered into an agreement with the International Atomic Energy Agency to place all such equipment, materials, technology, and all nuclear fuel and facilities in such country under the safeguards system of such Agency.

(b)(1) Notwithstanding subsection (a) of this section, the President may furnish assistance which would otherwise be prohibited under such subsection if he determines and certifies in writing to the Speaker of the House of Representatives and the Committee on Foreign Relations of the Senate that—

(A) the termination of such assistance would have a serious adverse effect on vital United States interests; and

(B) he has received reliable assurances that the country in question will not acquire or develop nuclear weapons or assist other nations in doing so.

Such certification shall set forth the reasons supporting such determination in each particular case.

(2)(A) A certification under paragraph (1) of this subsection shall take effect on the date on which the certification is received by the Congress. However, if, within 30 calendar days after receiving this certification, the Congress adopts a concurrent resolution stating in substance that the Congress disapproves the furnishing of assistance pursuant to the certification, then upon the adoption of that resolution the certification shall cease to be effective and all deliveries of assistance furnished under the authority of that certification shall be suspended immediately.

(B) Any concurrent resolution under this paragraph shall be considered in the Senate in accordance with the provisions of section 601(b) of the International Security Assistance and Arms Export Control Act of 1976.

(C) For the purpose of expediting the consideration and adoption of concurrent resolutions under this paragraph, a motion to proceed to the consideration of any such resolution after it has been

reported by the appropriate committee shall be treated as highly privileged in the House of Representatives.

3. THE GLENN AMENDMENT

Sec. 670. Nuclear Reprocessing Transfers, Illegal Exports for Nuclear Explosive Devices, Transfers of Nuclear Explosive Devices, and Nuclear Detonations.—(a)(1) Except as provided in paragraph (2) of this subsection, no funds authorized to be appropriated by this Act or the Arms Export Control Act may be used for the purpose of providing economic assistance (including assistance under chapter 4 of part II), providing military assistance or grant military education and training, providing assistance under chapter 6 of part II, or extending military credits or making guarantees, to any country which (A) on or after the date of enactment of the International Security Assistance Act of 1977 delivers nuclear reprocessing equipment, materials, or technology to any other country or receives such equipment, materials, or technology from any other country (except for the transfer or reprocessing technology associated with the investigation, under international evaluation programs in which the United States participates, or technologies which are alternatives to pure plutonium reprocessing), or (B) is a non-nuclear-weapon state which, on or after the date of enactment of the International Security and Development Cooperation Act of 1985, exports illegally (or attempts to export illegally) from the United States any material, equipment, or technology which would contribute significantly to the ability of such country to manufacture a nuclear explosive device, if the President determines that the material, equipment, or technology was to be used by such country in the manufacture of a nuclear explosive device. For purposes of clause (B), an export (or attempted export) by a person who is an agent of, or is otherwise acting on behalf of or in the interests of, a country shall be considered to be an export (or attempted export) by that country.

(2) Notwithstanding paragraph (1) of this subsection, the President may furnish assistance which would otherwise be prohibited under that paragraph if he determines and certifies in writing to the Speaker of the House of Representatives and the Committee on Foreign Relations of the Senate that the termination of such assistance would be seriously prejudicial to the achievement of United States nonproliferation objectives or otherwise jeopardize the common defense and security. The President shall transmit with such certification a statement setting forth the specific reasons therefor.

(3)(A) A certification under paragraph (2) of this subsection shall take effect on the date on which the certification is received by the Congress. However, if, within 30 calendar days after receiving this certification, the Congress adopts a concurrent resolution stating in substance that the Congress disapproves the furnishing of assistance pursuant to the certification, then upon the adoption of that resolution the certification shall cease to be effective and all deliveries of assistance furnished under the authority of that certification shall be suspended immediately.

(B) Any concurrent resolution under this paragraph shall be considered in the Senate in accordance with the provisions of section 601(b) of the International Security Assistance and Arms Export Control Act of 1976.

(C) For the purpose of expediting the consideration and adoption of concurrent resolutions under this paragraph, a motion to proceed to the consideration of any such resolution after it has been reported by the appropriate committee shall be treated as highly privileged in the House of Representatives.

(b)(1) Except as provided in paragraphs (2) and (3) of this subsection, no funds authorized to be appropriated by this Act or the Arms Export Control Act may be used for the purpose of providing economic assistance (including assistance under chapter 4 of part II), providing military assistance or grant military education and training, providing assistance under chapter 6 of part II, or extending military credits or making guarantees, to any country which on or after the date of enactment of the International Security Assistance Act of 1977—

(A) transfers a nuclear explosive device to a non-nuclear-weapon state, or

(B) is a non-nuclear-weapon state and either—

(i) receives a nuclear explosive device, or

(ii) detonates a nuclear explosive device.

(2)(A) Notwithstanding paragraph (1) of this subsection, the President may, for a period of not more than 30 days of continuous session, furnish assistance which would otherwise be prohibited under paragraph (1) of this subsection, if before furnishing such assistance, the President transmits to the Speaker of the House of Representatives, and to the Chairman of the Committee on Foreign Relations of the Senate, a certification that he has determined that an immediate termination of assistance to that country would be detrimental to the national security of the United States. Not more than one such certification may be transmitted for a country with respect to the same detonation, transfer, or receipt of a nuclear explosive device.

(B) If the President transmits a certification to the Congress under subparagraph (A), a joint resolution which would permit the President to exercise the waiver authority of paragraph (3) of this subsection shall, if introduced in either House within 30 days of continuous session after the Congress receives this certification, be considered in the State and House of Representatives in accordance with subparagraphs (C) and (D) of this paragraph.

(C) Any joint resolution under this paragraph shall be considered in the Senate in accordance with the provisions of section 601(b) of the International Security Assistance and Arms Export Control Act of 1976.

(D) For the purpose of expediting the consideration and adoption of joint resolution under this paragraph, a motion to proceed to the consideration of such a joint resolution after it has been reported by the appropriate committee shall be treated as highly privileged in the House of Representatives.

(E) For purposes of this paragraph, the term "joint resolution" means a joint resolution the matter after the resolving clause of which is as follows: "That the Congress having received on———a

certification by the President under section 670(b)(2) of the Foreign Assistance Act of 1961 with respect to , the Congress hereby authorizes the President to exercise the waiver authority contained in section 670(b)(3) of that Act.", with the date of receipt of the certification inserted in the first blank and the name of the country inserted in the second blank.

(3) Notwithstanding paragraph (1) of this subsection, if the Congress enacts a joint resolution under paragraph (2) of this subsection, the President may furnish assistance which would otherwise be prohibited under paragraph (1) if he determines and certifies in writing to the Speaker of the House of Representatives and the Committee on Foreign Relations of the Senate that the termination of such assistance would be seriously prejudicial to the achievement of United States nonproliferation objectives or otherwise jeopardize the common defense and security. The President shall transmit with such certification a statement setting forth the specific reasons therefor.

(4) For purposes of this subsection, continuity of session is broken only by an adjournment of Congress sine die and the days on which either House is not in session because of an adjournment of more than three days to a day certain are excluded in the computation of any period of time in which Congress is in continuous session.

(c) As used in this section, the term "non-nuclear-weapon state" means any country which is not a nuclear-weapon state, as defined in article IX(3) of the Treaty on the Non-Proliferation of Nuclear Weapons.

APPENDIX B

"GET TOUGH WITH PAKISTAN" BY SENATOR CLAIBORNE PELL—THE WASHINGTON POST, AUGUST 5, 1987

Pakistan is treating the United States with disdain. In its pursuit of a nuclear weapons capability, Pakistan is breaking its commitments to the United States and is flouting U.S. laws. Pakistan's conduct casts doubt on the viability of its current security assistance relationship with the United States.

Earlier this month a Pakistani agent was arrested in Philadelphia for attempting to export a specialty steel for use in Pakistan's nuclear weapons program. This case follows a much publicized 1984 incident involving the attempted export of electronic switches designed to detonate nuclear explosives. The furor set off by the 1984 case led to Pakistani promises not to acquire nuclear technology in the United States and to a new law barring U.S. assistance to nations that attempt to acquire illegally nuclear technology in this country. It is this commitment and this law that Pakistan has now so blatantly violated.

Pakistan has treated other promises to the United States with a comparably cavalier attitude. It continues to act in a manner inconsistent with its promise not to manufacture nuclear weapons, and it has violated a pledge to President Reagan not to enrich uranium above 5 percent. In the area of narcotics control, Pakistan promised in 1985 a major effort to reduce opium production. In 1986 such production increased.

With regard to terrorism, Pakistan promised an uncompromising stance. Specifically, we were told the four Palestinians apprehended for last year's murderous hijacking of a Pan Am 747 would meet "Pakistani justice," a term widely understood to mean a prompt rendezvous with Allah. Nearly a year later no trial has been set.

Why does the United States tolerate such a total disregard for commitments made to it, commitments that affect the vital interests of our country? The answer, in a word, is Afghanistan.

Although Pakistani restraint on its nuclear program was an explicit quid pro quo for renewed U.S. assistance, the Reagan administration has been unwilling to use the assistance program as a lever to force Pakistan to honor its nonproliferation commitments. Pakistan may respond to any such effort, the administration argues,

by shutting down the aid pipeline to the Afghan Freedom Fighters. So far, Congress has bought this argument. It is, however, an argument of dubious validity.

Pakistan permits assistance to the Afghan Freedom Fighers for its own strategic and political reasons. The continued Soviet occupation of Afghanistan is far more of a threat to Pakistan than to U.S. interests. If the Soviets were to consolidate their position in Afghanistan, Pakistan would face another neighbor militarily more powerful and with oft-stated designs on Pakistani territory. Pakistan has an obvious interest in preventing such a consolidation, which is why it had permitted assistance to the Freedom Fighters for nearly two years before U.S. foreign assistance to Pakistan was resumed. A cutoff of such U.S. aid would not change Pakistan's strategic interest in maintaining the Afghan pipeline.

For domestic reasons Pakistan cannot afford to shut down the Afghan pipeline. Since the 1979 Soviet invasion Pakistan has generously played host to some 3 million Afghan refugees. These refugees, who are heavily armed, have settled mostly in Pakistan's Northwest Frontier province. It is an area long prone to separatist sentiment and whose 10 million indigenous inhabitants are tribal kinsmen of the Afghan refugees. Pakistani authorities know that a decision to retaliate against a U.S. aid cutoff by shutting down the Afghan pipeline could result in civil war.

Finally, Pakistan has diplomatic reasons to maintain the Afghan pipeline. Pakistan's closest military partner is China, a country reportedly much involved in assisting the Afghan Freedom Fighters. Another military and financial partner is Saudi Arabia, which also has a strong interest in assisting the devout Afghans fight the atheistic Soviet invaders. Retaliation would put Pakistan in the position of cutting off its Chinese-Saudi nose to spite its American face.

Pakistan has repeatedly stated that its Afghan policy is undertaken for its own reasons and is not dependent on U.S. assistance. In this case, there is every reason to believe Pakistan.

The administration has played, on Pakistan's behalf, an Afghan card that Pakistan does not possess and indeed does not claim. The result has been an American posture of weakness on matters of vital national interest.

Our failure to hold Pakistan to its nonproliferation commitment risks a disastrous nuclear arms race in South Asia and undermines the credibility of our global nonproliferation policy. The costs are also high in the areas of terrorism and narcotics.

In addition, our willingness to accommodate Pakistani deceit on the nuclear issue may be harmful to the Afghan program itself. Journalists and South Asian experts have estimated that a large part of the assistance intended for the Afghan Freedom Fighters is being diverted into Pakistani pockets. Such diversions obviously are harmful to the Afghan cause. They are made possible, in part, by a Pakistani belief that the United States is unwilling or unable to hold it accountable.

It is time to get tough with Pakistan. The policy of excuses and quiet diplomacy has failed to arrest Pakistan's nuclear program and has invited a cavalier Pakistani approach to all its commitments to the United States. If Pakistan perceives that the United States means business, it is more likely to keep its word. It will certainly respect us more.

The writer, a Democratic Senator from Rhode Island, is Chairman of the Foreign Relations Committee.

APPENDIX C

A CHRONOLOGY: NUCLEAR PROLIFERATION AND SOUTH ASIA

by
Rodney A. Snyder
Research Assistant
and
Warren H. Donnelly
Senior Specialist
Environment and Natural Resources Policy Division
July 1, 1988

08/14-15/47 - India and Pakistan gain their independence.

--/--/48 --- The India Atomic Energy Commission was established.

12/08/53 --- President Eisenhower's Atoms-For-Peace speech was delivered to the United Nations.

08/30/54 --- President Eisenhower signed the Atomic Energy Act of 1954, P.L. 83-703, opening the way for U.S. nuclear cooperation with other countries.

--/--/55 --- The U.S. Atomic Energy Commission began negotiating agreements for cooperation in civil uses of nuclear energy with 27 countries, including Pakistan. The agreements covered exchanges of unclassified information on design, construction, and operation of research.

--/--/55 --- Pakistan established an Atomic Energy Commission to survey the nation's uranium resources, establish a nuclear research center, and provide advice on nuclear related matters.

08/11/55 --- The U.S. agreement for nuclear cooperation with Pakistan took effect.

--/--/56 --- India's first research reactor, Apsara, began operation.

03/23/56 --- The Islamic Republic of Pakistan was proclaimed.

04/16/56 --- The Argonne National Laboratory initiated a third course in the International School of Nuclear Science and Engineering. Some of the 62 students came from Pakistan.

09/01-13/58 - The International Atomic Energy Agency was established with Pakistan as a member.

--/--/59 --- The Pakistan Atomic Energy Commission was established, modelled after the U.S. Atomic Energy Commission.

--/--/63 --- Chinese forces defeated the Indian army in a series of major border clashes in the Himalayas.

11/22/63 --- Pakistan began operating its first research reactor under IAEA safeguards.

--/--/64 --- India's CIRUS reactor began full power operation.

--/--/64 --- China conducted its first nuclear test.

--/--/66 --- India's Trombay pilot-scale reprocessing plant began operation.

--/--/68 --- India refused to sign the recently negotiated NPT.

03/05/70 --- The Nuclear NonProliferation Treaty entered into force. Pakistan nor India were signatories.

01/--/71 --- After taking office, Prime Minister Bhutto convened a group of scientists and announced that Pakistan would develop atomic weapons. (Weissman and Kronsey, Islamic Bomb, p. 75.)

--/--/71 --- Prime Minister Bhutto removed Ishrat Usmani as head of the Pakistan Atomic Energy Commission because of his reported opposition to nuclear arms and appointed Munir Kahn, a supporter of nuclear weapons. (Spector, Nuclear Proliferation Today, p. 72.)

11/--/71-03/--/72 --- India defeated Pakistan in a border war that resulted in the creation of Bangladesh from territory that had been East Pakistan.

--/--/73 --- Pakistan's Prime Minister Bhutto began negotiations with France for the purchase of a large reprocessing plant to be located at Chashma.

--/--/74 --- Pakistan began construction of a small, secret reprocessing facility adjacent to the Pakistan Institute of Nuclear Science and Technology. (Spector, Nuclear Proliferation Today, p. 75.)

05/18/74 --- India detonated a nuclear device with a reported yield of 15 kilotons.

12/--/74 --- Canada revised its nonproliferation policy to require as a condition for supply either ratification of the NPT or an equivalent political commitment to nonproliferation, and acceptance of full scope safeguards.

--/--/75 --- France insisted that the Chashma reprocessing plant be placed under IAEA safeguards.

02/--/75 --- The Ford Administration lifted the U.S. embargo on Pakistan, started in 1971 at the time of the Bangladesh War.

03/18/76 --- Secretary of State Kissinger advised Prime Minister Bhutto that completion of the Chashma reprocessing plant would trigger a cutoff of U.S. economic and military assistance.

06/30/76 --- President Ford signed the International Security and Arms Export Control Act of 1976 (Symington Amendment), amending the Foreign Assistance Act of 1961 to cut off U.S. economic and military assistance to any country which delivers or receives technologies for (uranium) enrichment unless certain conditions are met.

04/07/77 --- President Carter in his statement on nuclear power policy voiced concern about the further spread of nuclear weapons, the prospects of which would be "vastly increased" by the "further spread of sensitive nuclear technologies," entailing access to plutonium or highly enriched uranium. He announced that the U.S. would indefinitely defer commercial reprocessing and recycling of plutonium and continue to embargo the export of equipment or technology for enrichment or reprocessing.

06/--/77 --- France began to delay performance under the Chashma reprocessing contract and to add new conditions.

07/05/77 --- Pakistan's Chief of the Army Staff, Gen M. Zia ul-Haq deposed Prime Minister Bhutto, proclaimed martial law, and took control of the administration of the state.

08/04/77 --- President Carter signed the International Security Assistance Act of 1977, amending the Symington Amendment by adding new provisions regarding the cut off of U.S. aid in connection with the supply or receipt of the wherewithal to reprocess spent fuel. This new amendment (the Glenn Amendment) also added a new

section, 670, that provides for the termination to any non-nuclear weapons state that detonates a nuclear explosive, with authority for a Presidential waiver if certain findings are made. (The Glenn-Symington Amendment.)

09/--/77 --- The U.S. cut off economic and military aid to Pakistan because of its continued receipt of French help on the Chashma reprocessing plant.

03/10/78 --- President Carter signed the Nuclear NonProliferation Act of 1978, P.L. 95-242, which imposed conditions that would prevent U.S. nuclear cooperation with Pakistan.

08/--/78 --- France stopped performance under the reprocessing supply contract with Pakistan.

09/--/78 --- Gen. Zia ul-Haq became President of Pakistan.

10/--/78 --- U.S. military and economic aid to Pakistan was restored after the earlier cutoff in September 1977.

04/07/79 --- The Carter Administration cut off economic aid and military assistance to Pakistan after failed attempts to persuade President Zia to abandon the Kahuta centrifuge enrichment project.

08/12/79 --- Reports indicated that the Carter Administration was preparing to step up its efforts to stop Pakistan's sensitive nuclear activities. Options considered apparently included an offer to supply F-16 aircraft, or stronger economic sanctions, or covert action to disable the enrichment plant. (New York Times, August 12, 1979.)

08/17/79 --- According to U.S. intelligence officials, foreign intelligence indicated that an underground nuclear test site was being prepared in southern Pakistan. (The New York Times, August 17, 1979.)

11/21/79 --- The U.S. embassy was burned in Islamabad by a mob after false reports were circulated indicating American involvement in the takeover of the Great Mosque in Mecca, Saudi Arabia.

12/25/79 --- The Soviets invaded Afghanistan.

--/--/80 --- India launched its first satellite.

02/01/80 --- The Carter Administration decided to seek an exemption to the termination of economic and military aid to Pakistan under the Glenn-Symington Amendment.

09/23/80 --- A report said that a secret Pakistan effort to build a small reprocessing plant at Pinstech was underway. (The Washington Post, September 23, 1980.)

09/23/80 --- Munir Ahmed Kahn at the IAEA General Conference explained Pakistan's interest in reprocessing and eventually, in breeder reactors.

12/--/80 --- Canada charged three men with illegally exporting to Pakistan certain U.S. electronic components that could be used in nuclear weapons designs.

--/--/81 --- Pakistan was said to be preparing a nuclear test site. (Spector, Nuclear Proliferation Today, 1984, p. 70.)

01/18/81 --- A report indicated that Saudi Arabia offered Pakistan $800 million to help the latter make a H-bomb, on condition that the

technology not be transferred in anyway to Iraq. (London Sunday Times, quoted in FBIS/NDP, February 26, 1981.)

04/28/81 --- The New York Times, quoting U.S. intelligence sources, reported that India was preparing a nuclear test site.

06/--/81 --- The Reagan Administration authorized a resumption of military and economic aid to Pakistan cut off by the Carter Administration in April 1979.

06/--/81 --- The U.S. and Pakistan agreed to a six-year, $3.2 billion aid plan, which included forty F-16 aircraft.

06/21/81 --- A report said that Pakistan had been designing and building non-nuclear parts for nuclear weapons since 1981. (The Washington Post, June 28, 1981.)

11/19/81 --- A report indicated that in October, U.S. customs officials arrested a retired Pakistan army colonel trying to smuggle some zirconium metal onto an airplane in New York City. (New York Times, November 20, 1981.)

12/29/81 --- P.L. 97-113 was enacted, adding a new Section, 620E, to the Foreign Assistance Act of 1961 which allows the President to waive the prohibition on aid under Section 669-670, the Glenn-Symington Amendments, in order to provide aid to Pakistan. Also, section 670 was amended to cut off economic and military aid to any country which transfers a nuclear explosive device to a non-nuclear weapons state, or is a non-nuclear weapons state and receives such a device or detonates one.

--/--/82 --- The start-up of India's Tarapur reprocessing facility.

--/--/82 --- U.S. fuel shipments to India were terminated because India would not agree to full scope safeguards. The Reagan Administration arranged for France to take over the fuel supply for India's Tarapur reactors.

01/23/82 --- An article said that a CIA report concluded Pakistan could detonate a nuclear device within the next three years, but was not likely to do so. (New York Times, January 24, 1982.)

02/11/82 --- President Reagan used his authority to waive the termination of U.S. economic and military aid to Pakistan.

06/17/82 --- A report said that the Reagan Administration was trying to bring potential suppliers of a large nuclear power plant to Pakistan into line with the U.S. policy of requiring full scope safeguards. (Nucleonics Week, June 17, 1982.)

08/19/82 --- A Reagan Administration official indicated in an interview that China has provided Pakistan with sensitive information about the design of nuclear weapons. (Nucleonics Week, August 19, 1982.)

09/--/82 --- U.S. officials were reportedly disturbed by intelligence reports suggesting that China has helped Pakistan with uranium enrichment. (New York Times, September 19, 1982.)

--/--/83 --- The unsafeguarded Madras I reactor began operation.

07/08/83 --- Canadian Minister for External Affairs, Allan MacEachen, said in Islamabad that there could be no nuclear cooperation between Canada and Pakistan until the latter signs the NPT or agrees to full scope safeguards. (Nucleonics Week, July 14, 1983.)

12/22/83 --- Pakistan asked the Soviet Union for help in construction of the proposed Chashma nuclear power plant.

12/31/83 --- The deadline for submitting bids for a large nuclear power plant in Pakistan passed without any bids having been submitted.

06/22-23/84- Reports indicated that China had helped Pakistan with enrichment. (New York Times, June 22 and 23, 1984.)

07/--/84 --- Three Pakistanis were arrested in Houston while attempting to smuggle high-speed electronic switches (krytons) to Pakistan.

07/16/84 --- Houston. A federal grand jury indicted three Pakistanis for trying to ship parts for nuclear weapons to Pakistan.

07/24/84 --- According to a senior administration official, Pakistan secretly produced weapons grade nuclear material at its Kahuta uranium enrichment facility. (Washington Times, July 25, 1984.)

10/31/84 --- Prime Minister Indira Gandhi was assassinated.

12/28/84 --- Rajiv Gandhi was confirmed as prime minister in a general election.

05/01/85 --- President Reagan transmitted to Congress a report on Pakistan's nuclear program.

08/08/85 --- New Delhi. India's Atomic Energy Commission announced the start-up of its powerful new Dhruva reactor, noting that it would give India a source of plutonium from domestic technology and fuels, implicitly suggesting that it would also be free from IAEA safeguards.

08/08/85 -- President Reagan signed the International Security and Development Cooperation Act of 1985. It amended the Foreign Assistance Act of 1961 by adding certification requirements in order for Pakistan to receive assistance, sales or transfers from the U.S. The President must certify during each fiscal year that Pakistan does not possess a nuclear explosive device. Also, the President must certify to Congress that the proposed U.S. assistance will significantly reduce the risk that Pakistan will possess a nuclear explosive device. The act also amended the Foreign Assistance Act to prohibit military and economic assistance to any non-nuclear weapons state which illegally exports, or attempts to illegally export, from the U.S. items which would "contribute significantly" to the ability of such a country to make a nuclear explosive device.

10/--/85 --- President Reagan certified to Congress that Pakistan did not possess a nuclear explosive device, and that U.S. security assistance would reduce significantly the risk that Pakistan would possess such a device.

10/23/85 --- New York. President Zia addressed the UN General Assembly. He reaffirmed Pakistan's policy of developing nuclear energy for peaceful purposes only and its irrevocable commitment not to acquire nuclear weapons or nuclear explosive devices. He reiterated Pakistan's proposals to India which included: 1) the simultaneous accession by India and Pakistan to the NPT, 2) the simultaneous acceptance by both of full scope IAEA safeguards, 3) the mutual inspection of each other's nuclear facilities, 4) a joint declaration renouncing the acquisition or development of nuclear weapons, and 5) the establishment of a nuclear weapons free zone in South Asia.

12/17/85 --- President Zia and Prime Minister Gandhi pledged not to attack each other's nuclear facilities.

06/15/86 --- A senior U.S. official reaffirmed President Reagan's certification of October 1985 that Pakistan "does not possess a nuclear device" and said that "we see no reason at this time to

change our conclusion." This White House statement followed published reports quoting U.S. intelligence sources as saying Pakistan had produced 30% enriched uranium. (Washington Times, July 16, 1986.)

07/15/86 --- A news report indicated that the Soviet Union had warned Pakistan about its nuclear activities in direct and unusually tough terms, and that the Reagan Administration had responded with a private message to Moscow reiterating the strong U.S. commitment to Pakistan's security. (Washington Post, July 17, 1986.)

07/17/86 --- Washington. Pakistan's Prime Minister, Mohammed Khan Junejo, in an interview on the NBC TV's "Today" show said that his country had no intention of building a nuclear weapon, and that its enrichment program is for peaceful purposes only.

09/15/86 --- Beijing. Pakistan and the People's Republic of China signed a comprehensive agreement for peaceful nuclear cooperation covering the design, construction and operation of research and power reactors; but specifying that the cooperation is solely for peaceful purposes and not for the development of any explosive devices for military purposes. In Washington, a Reagan Administration official said it is still U.S. policy to discourage other countries from having any significant nuclear cooperation with Pakistan until it places all of its nuclear facilities under IAEA safeguards.

10/27/86 --- Washington. President Reagan sent to Congress his certification that Pakistan did not possess a nuclear explosive device and that proposed U.S. assistance for FY87 will reduce significantly the risk that Pakistan would possess such an explosive.

11/04/86 --- The Washington Post said that according to intelligence reports, Pakistan had enriched uranium to 93.5% and also had detonated high explosive devices as part of a continuing effort to build an implosion type nuclear weapon. (November 4, 1986.)

01/06/87 --- President Reagan certified to Congress that Pakistan did not possess a nuclear explosive device, and that proposed assistance would reduce the risk that they would possess one.

03/19/87 --- Islamabad. American pressure on Pakistan to stop developing a nuclear bomb provoked objections throughout the country and raised doubts among some about the reliability of Washington as a friend. (New York Times, March 22, 1987,)

04/27/87 --- New Delhi (Reuters). India said it had decided to review its nuclear policy because of what it called an emerging nuclear threat from Pakistan. In the Lower House of Parliament, Defense Minister R.C. Pant said that India's response will be "adequate to our perception of the threat."

05/19/87 --- U.S.-India relations worsened as tension escalated over U.S. military aid to Pakistan. One measure of Indian anger was the cancellation of a trip to Washington by Indian Foreign Minister N.D. Tiwari. India claimed that a U.S. pledge of a new sensitivity to Indian concerns had been violated by continued aid to Pakistan, and efforts to provide Pakistan with highly sophisticated equipment. (New York Times, May 19, 1987.)

07/10/87 --- Washington. A Canadian national of Pakistani descent was arrested in Philadelphia on charges that he tried to export material to Pakistan that could be used in making nuclear weapons. (New York Times, July 15, 1987: A1, A8.)

07/10/87 --- Representative Solarz issued a statement calling on the President to invoke the Solarz Amendment to the Foreign

Assistance Act and terminate U.S. aid to Pakistan because of an attempt to illegally export nuclear materials from the U.S.

07/16/87 --- Karachi. The Pakistan government denied that it was involved in any way in an attempt to export beryllium from the U.S. illegally for possible use in making nuclear weapons. (New York Times, July 17, 1987: A4.)

08/20/87 --- New Delhi. Dr. P.K. Iyenger, Director of India's Bhaba Atomic Research Center, was quoted as saying that India would start exporting nuclear reactors and heavy water technology in a few years. (Hong Kong AFP, August 20, 1987.)

09/21-26/87 ---Vienna. During the thirty-first IAEA General Conference, Munir Ahmad Kahn, Chairman of Pakistan's Atomic Energy Commission, announced that Pakistan was ready to make a joint declaration with other South Asian countries not to acquire, manufacture, or store nuclear weapons in the region. Pakistan was also willing to consider stronger joint measures, including signing the NPT, and acceptance of full scope safeguards or reciprocal inspections of nuclear facilities. (Nucleonics Week, October 1, 1987: 16.)

09/30/87 --- Presidential authority expired to continue U.S. economic and military aid to Pakistan by waiving the cutoff mandated by the Symington Amendment.

10/10/87 --- New Delhi. Prime Minister Gandhi said he welcomed the recent vote in Congress to suspend aid to Pakistan because of concern about that country's nuclear program, but said he rejected Washington's proposal for a treaty between India and Pakistan banning nuclear weapons. (New York Times, October 11, 1987: 15.)

10/20/87 --- Washington. Prime Minister Gandhi, in a statement to President Reagan, said that India did not have nuclear weapons, did not want them, and certainly did not want them in its neighborhood.

11/01/87 --- According to a British periodical, Pakistan intended to adapt American F-16 aircraft to deliver atomic weapons, and Pakistan was nearing the completion of a transportable bomb.

12/17/87 --- President Zia and Prime Minister Gandhi agreed not to attack each other's nuclear installations.

12/17/87 --- Washington. President Reagan, without public notice, certified that Pakistan did not possess a nuclear explosive device.

12/17/87 --- Philadelphia. Arshad Pervez, a Canadian national of Pakistani descent, was convicted for his attempt to illegally export beryllium to Pakistan. (New York Times, December 18, 1987: A15.)

12/22/87 --- President Reagan approved the continuing resolution for FY88, H.J. Res. 395, Section 557 of Title V extending the President's authority to waive the Symington Amendment mandating a cutoff of U.S. aid to Pakistan for two-and-a-half years from September 30, 1987 to April 1, 1990. (P.L. 100-202.)

01/04/88 --- Washington. Pakistan decided to ratify the Partial Test Ban Treaty.

01/15/88 --- Washington. President Reagan sent to Congress waivers to the requirements of the Symington, Glenn and Solarz Amendments to the Foreign Assistance Act of 1961 to terminate U.S. economic and military aid to Pakistan.

02/--/88 --- Pakistan. A report indicated that Pakistan was building a second enrichment facility at Golra Sharif, near Islamabad, was denied by Pakistan. (Nuclear Engineering International, February 1988: 7.)

03/10/88 --- A Pakistan Atomic Energy Commission official said France had expressed a willingness to supply a large nuclear power plant provided Pakistan surrendered all legal, financial, and political claims against the French for failure to supply a contracted reprocessing plant. The proposal was not acceptable to Pakistan, but negotiations were continuing. (Nucleonics Week, March 10, 1988: 6.)

03/20/88 --- Washington. UPI carried a story by Richard Sale that India had assembled a handful of sophisticated low-yield atomic bombs that could be delivered by combat aircraft. According to Sale, intelligence sources said there was strong evidence that India had developed a nuclear warhead for use on surface-to-surface missiles.

03/21/88 --- Washington. India's ambassador, P.K. Kaul, dismissed as a "figment of imagination" a news report that India possessed twenty or more atom bombs that could be delivered by combat aircraft.

04/14/88 --- Agreements between Pakistan and Afghanistan were signed in Geneva providing for the withdrawal of Soviet troops from Afghanistan beginning May 15 and ending not more than nine months thereafter. The U.S. and U.S.S.R. signed as guarantors.

05/06/88 --- New Delhi. Bolstered by advances in its own technology, India proceeded with an ambitious nuclear energy program requiring the storage of tons of plutonium of potential use for nuclear weapons in installations without international safeguards. (New York Times, May 7, 1988: 1,4.)

05/06/88 --- New Delhi. Prime Minister Gandhi denied allegations that India had received fifteen tons of heavy water diverted secretly and illegally from Norway. (The Globe and Mail, May 11, 1988: A6.)

05/15/88 --- The Soviets began fulfilling their obligation to withdrawal from Afghanistan, which they have nine months to complete.

05/24/88 --- An U.S. official confirmed the report that Pakistan test-fired a missile capable of carrying nuclear weapons. (New York Times, May 24, 1988:A1.)

05/29/88 --- President Zia dissolved the elected national assembly, dismissed the civilian prime minister and dismissed the cabinet.

02/15/89 --- The Soviets are obligated to have completed their withdrawal from Afghanistan by this time.

04/01/90 --- The President's authority to waive the cutoff of U.S. economic and military aid to Pakistan expires.